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Wisconsin Paper Mills Report Good Business

Consolidated Water Power & Paper Co.'s Four Mills Increased Production On All Grades 22 Per Cent Last Year—Profits Were Greater Than In Boom Years of 1928 and 1929—Northern Paper Mills Earnings Increased 27 Per Cent—Nekoosa-Edwards Paper Co., Also Experienced Very Satisfactory Year

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., February 8, 1931—Annual meetings of some of the large mills in Wisconsin reveal satisfactory business during the last year and a reasonably good outlook for 1931. While no figures were given out, the Consolidated Power and Paper Company, Wisconsin Rapids, Wis., reported that its tonnage in the four mills owned by the corporation increased 22 per cent on all grades, including news print, as compared to the previous year. Profits were greater than in the boom years of 1928 and 1929. Production was sold out on contract early in 1930 and the mills therefore operated near capacity right through the year. Indications are that 1931 also will be a successful one for this company. One change was made in the board of directors, with Walter L. Mead replacing W. D. Fowler, of Chicago, resigned. Others on the board are George W. Mead, president of the company, W. L. Kraus, Stanton W. Mead, Theodore W. Brazeau, F. P. Hixson and E. B. Redford. Officers are to be elected upon the return of George W. Mead and his sons from the south.

Net profits of the Northern Paper Mills Company, Green Bay, Wis., and its affiliated companies, the Tuttle Press Company, and the Northern Electric Company, were increased from $364,445.18 in 1929 to $370,202.49 in 1930, according to the annual reports. The paper mill itself earned $59,972.14 more last year than in 1929, an increase of 27 per cent. Because of the lessened rainfall last year, earnings of the Northern Electric Company decreased $43,379.58. Total net earnings for 1930 are equal to $4.35 per share on common stock after making provisions for preferred dividend requirements. Cash dividends paid to stockholders amounted to $2.00 per share last year. Officers were re-elected as follows: W. P. Wagner, president; Judson G. Rosebush, vice-president and general manager; L. G. Wood, vice-president and assistant general manager; Earle Murray, vice-president, and A. R. Burton, secretary.

At the George A. Whiting Paper Company, Menasha, Wis., Frank B. Whiting was elected president. He succeeds to the position held for many years by his late father, George A. Whiting. Other officers chosen are: R. M. Sensenbrenner, vice-president; George Hilton, Oshkosh, secretary. Mr. Whiting also serves as treasurer. Officers chosen by the Whiting-Plover Paper Company, Stevens Point, Wis., are: E. A. Oberweiser, president and treasurer; F. B. Whiting, vice-president, and George Hilton, secretary.

Reports submitted at the annual meeting of the Nekoosa-Edwards Paper Company, Nekoosa, Wis., showed that the year passed had been a very satisfactory one, according to C. A. Jasperson, secretary. President, directors and officers were retained, as follows: President and treasurer, L. M. Alexander; first vice-president, John E. Alexander; second vice-president, Judson G. Rosebush; secretary, C. A. Jasperson; directors, J. W. Kibby, L. M. Hanks, F. J. Wood, Guy O. Babcock and J. B. Nash.

Improving Reforestation Conditions

With the expenditure of $47,550 for roads and fire lanes in the Moquah, Flambeau and Argonne federal forests of Wisconsin, a program is under way, under the direction of E. W. Tinker, regional forester, to improve reforestation conditions. One-hundred men are being placed at work to build roads through the forest areas, and breaks between sections so as to make each part of the wooded areas easy of access to stamp out fires before they develop losses. Warehouses also are to be built at convenient points for the storage of equipment.

In addition to improving the present units, the forestry bureau will establish a nursery in the Spring near Rhinelander, Wis., where 10,000,000 trees will be produced annually. The tract includes 20 acres, and $10,000 will be spent to put it in shape. Upper Michigan and Minnesota also will receive parts of a federal appropriation of $169,000 for improvement work. Efforts are being made to use unemployed men in each of the localities in order to help out this situation. Fred L. Johns, of Tulsa, Okla., and R. U. Harmon, forest supervisor, are directing the work on roads and fire lanes.

Safety Council to Meet at Fond du Lac

May 20 is the date adopted for the annual Spring meeting of the Fox River Valley and Lake Shore Safety Council, scheduled at Fond du Lac, Wis. The plan of other years will be followed, with group sessions for various industries, one of which will be paper and pulp mills. General gatherings will be held in the afternoon and evening at which outstanding speakers will give addresses on this work. Arrangements are being made to accommodate 1,200 to 1,500 persons.

Safety schools are starting sessions in a number of paper mill cities and will conduct weekly gatherings until Spring, when closing banquets will be held. Green Bay enjoyed an attendance of 700 at its opening session, where Elwood T. Bailey, of Los Angeles, Cal., was the speaker. Mr. Bailey also gave the address at the opening session of the Neenah-Menasha school, and at

(Continued on page 20)

M. Redmond 50 Years With Kalamazoo Paper Co.

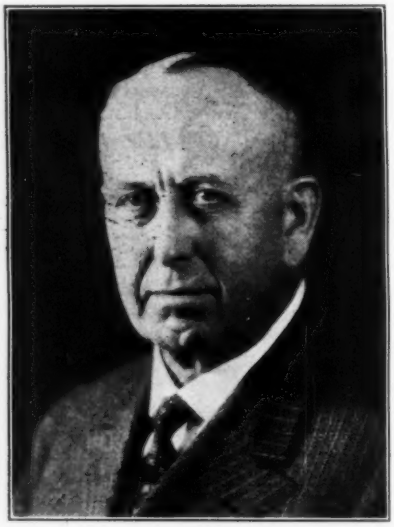
Popular General Superintendent Is Tendered Impressive Banquet on Golden Anniversary of His Connection With the Company—Began Work at Age of 15 Years As A Screen Boy at $3 Per Week—Hon. Wilbur Brucker, Governor of the State Sends Tribute

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., February 9, 1931—"A man who has started at the bottom and seen it through to the top has done a great deed," said Fred M. Hodge, president of the Kalamazoo Paper Company, who Saturday evening appeared in the capacity of toastmaster at the banquet tendered Michael J. Redmond, general superintendent of the same concern, who has just completed fifty years of faithful service for that concern.

A Fine Tribute of Respect

It was a fine tribute of respect for a worker and official that caused 350 men, all associated in the paper and allied industries to gather in the main auditorium of the Masonic Temple to let Redmond know just how they regard his remarkable record of fidelity. Storms of applause greeted the guest of honor and the many fine verbal tributes paid him. When finally Mayor S. R. Light, spoke of his value as a citizen as well as an officer of the Kalamazoo Paper Company, and in conclusion presented him with a fine silver service and chest of silver, the applause was deafening.



MICHAEL REDMOND

Mr. Redmond was plainly overcome by the demonstration, but braced himself and said: "I deem this gathering a great honor and want you to know that I appreciate it fully. This is indeed the happiest day of my life."

Governor Sends Representative

Not only was the paper industry represented and Kalamazoo as a city, but Gov. Wilbur M. Brucker sent as his representative Webster H. Pearce, state superintendent of public instruction.

"The governor said to me," remarked Mr. Pearce, "tell Redmond that I would rather have a record like his, of 50 years of faithful service and be honored by my associates for that service than be the governor of Michigan."

Another out of the city speaker was Robert Eminger, Miamisburg, Ohio, secretary of the American Pulp and Paper Mill Superintendents Association He appeared for President Carl Magnus. In addition to congratulations from the superintendents association, he also read a telegram of like nature from Max Kimmel, president of the Technical Association of the Paper Industry.

Fred Boyce, founder and father of the Superintendents Association, paid a fine tribute to Mr. Redmond as a man and official.

The Rev. John R. Hackett, pastor of St. Augustine church declared that Michael J. Redmond possesses character, industry and common sense. "He doesn't let so called ideals befuddle his ideas."

Fair and Thorough

Felix Pagenstecher, president of the Bryant Paper Company, said the secret of Mr. Redmond's success lay in his fairness and thoroughness.

Ralph A. Hayward, vice-president and general manager of the Kalamazoo Vegetable Parchment Company, appeared for Jacob Kindleberger, president, now confined to his home by illness.

The program was an elaborate one throughout and carried through with snap and pep. C. J. McMahon, chairman, introduced the toastmaster and remarked that the splendid co-operation from every source was a token of the respect and love for Mr. Redmond in all branches of the paper trade.

A Remarkable Record

Michael J. Redmond boasts a most remarkable record, not only from the standpoint of service with the Kalamazoo Paper Company, but also in the annals of the entire paper trade. Fifty years with one concern is seldom accomplished.

It was in 1881, when 15 years of age that Mr. Redmond entered the employ of the Kalamazoo Paper Company as "screen boy" under Noah Bryant, who was then superintendent. That was in the old Kalamazoo Paper mill, located where the Monarch division of the Allied Paper Mills now stands.

He started at $3 a week and it is understood he asked Superintendent Bryant if it would be a steady job. In eight years he was doing better, having risen to the lofty position of machine tender. Late in 1898 he was made superintendent of the old mill, having been appointed by F. M. Hodge to succeed George D. Wilmott, who was confined to his bed with a lingering illness. Only a few months later, or in 1899, the Kalamazoo Paper Company purchased the property of the defunct Wolverine Paper Company, sometimes referred to as the Botsford Paper Company, and at their present location in East Michigan avenue. Mr. Redmond was placed in charge of that mill.

Made General Superintendent

In 1914 he was made general superintendent, having under his charge paper mills 1 and 2. In 1918 the Kalamazoo Paper Company absorbed the River View Coated Paper Company and thereby took over another paper mill, adding that much more to Redmond's duties. This last mill had one machine when purchased, but the second one was added in 1925. He has seen the plant where he has labored grow from a mill with two machines, making about 20,000 pounds of paper a day to a concern with six machines, producing over 300,000 pounds of paper each day, supplemented by two coating divisions with a capacity of 120,000 daily. And they say: "Today after fifty years his activity and devotion to his work continues undiminished."

This banquet is not only a tribute to the service of Michael Redmond, but recalls quite as impressively the connection of the

entire Redmond family with the Kalamazoo Paper Company. Quoting from Tennyson's "Brook" it may be said of the Redmond clan:

"For men may come and men may go,
But I go on forever."

Proud of Success of His Boys

The first Redmond employed was the father, Patrick, back in the 70s. He had come to Kalamazoo in the late 60s. from Hillsdale, bringing Michael with him. While the father never rose to a lofty executive post with the company, he glorified in the success of his boys. Following the father and Michael there came Cornelius F. Redmond, who rose to the rank of boss machine tender with the Kalamazoo Paper Company, then resigned and went to the Montrose Paper Company, at Thorald, Ontario, built a mill there and came back to the Kalamazoo Paper Company in the capacity of mill superintendent. He has since resigned and lives in Los Angeles. Another son and brother, William J. Redmond, came along, starting at the bottom of the ladder and today is head of the Riverview Coating division of the concern. The late Charles Redmond is another of the family. He was one of the general maintenance men, when taken off by a fatal illness. The last in the line is David J. Redmond, foreman in the coating division. Patrick J. Redmond also confesses that at one time he was on the Kalamazoo Paper Company's payroll, though after only a short period, he left the manufacturing field for the law.

Entertainment Features

Entertainment features were under the direction of Don McDowell, of the Kalamazoo Vegetable Parchment Company. He offered Sam Shires and his orchestra, the Kalamazoo Male Chorus, 50 strong; Mrs. John A. Van Dongen, soloist; Bob Smith, comedian and the Misses Wilmot Nancarrow and Marion Teal, dancers.

Another feature was the introduction of the old timers at the meeting, the veterans being those who had served their respective companies 25 years or longer. The setting for the banquet was attractive and in good taste, while the souvenir programs, printed on woven bond stock, product of the Hawthorne Paper Company, will be treasured by all who attended.

Arrangements for this highly successful event were prefected by a committee, of which C. J. McMahon was chairman. The other members being George Pountain, A. M. Vandeberg, W. A. Anderson, Charles G. McClelland, E. H. "Dad" Gilman, Homer E. Stafford, William H. Sievert, C. B. Smith, Bernard Benson, William H. Donaldson, Robert E. Kruedener, Lawrence Lynd, A. E. Woollam and Jacob Parent.

Heads Alliance Paper Mills

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., February 9, 1931.—Alliance Paper Mills has announced the election of Harold Crabtree as president of the company in succession to C. Howard Smith, whose resignation was handed in a short time ago. George W. Pauline, managing director, and L. E. Fleck, assistant managing director, have been appointed vice-presidents. Both Mr. Pauline and Mr. Fleck will continue to hold their former respective executive positions, the last named being also in charge of manufacture at all the company's mills.

E. Howard Smith was appointed to fill a vacancy on the board of directors occasioned by the resignation of his father, C. Howard Smith.

Thomas Duff Goes With Wheelwright Paper Co.

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., February 10, 1931—Thomas Duff, who has been superintendent for an American Writing Paper Company, Inc. mill and also of the Collins Manufacturing Company of North Wilbraham has accepted a position as superintendent of the Wheelwright Paper Company of Wheelwright.

To Minimize Unemployment

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., February 11, 1931—The paper board industry is organized to minimize unemployment within its ranks, according to a statement received by Colonel Arthur Woods, chairman of the President's Emergency Committee for Employment, from J. H. Macleod, president of the Paperboard Industries Association. A central committee has been formed of paper board executives who will act to assemble and apply all sound methods applicable to their type of work. Mr. Macleod reports this step as follows:

"At a bi-monthly meeting of our Association in Chicago last week, the following committee was appointed to cooperate with the President's Emergency Committee for Employment:

Chairman, J. L. Barchard, Hummel & Downing Company, Milwaukee, Wis.

Hugh Strange, John Strange Paper, Menasha, Wis.

C. H. Andrews, National Folding Box Company, New Haven, Conn.

E. V. Donaldson, Robert Gair Company, New York, N. Y.

H. I. Schmidt, Schmidt & Ault Paper Company, York, Pa.

R. H. Dollison, Fairmount, Fairmount Box Company, Fairmount, W. Va.

"As soon as reports have been received from our member companies describing methods they have used to stabilize employment, we will condense this information and circulate it to our membership. We will also prepare a statement for the President's Emergency Committee, covering any general factors which stand in the way of complete employment in the paper board industry as well as our suggestions for remedying these conditions."

Similar organizations are being formed in other industries throughout the country in response to suggestions circulated by the President's Emergency Committee, with trade associations acting as points of transfer for stabilization plans. What is being done and can be done by individual firms to promote employment has been compiled by the President's Emergency Committee in two pamphlets entitled "An Outline of Industrial Policies and Practices in Time of Reduced Operation and Employment" and "A Survey of Unemployment Relief in Industry." Copies are available on request at the Committee's offices in the Department of Commerce Building, Washington, D. C.

Bids and Awards for Government Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., February 11, 1931—The Government Printing Office has received the following bids for 20,000 pounds of green calendered tag board in 23¼-inch rolls; R. P. Andrews Paper Company, at 7.21 cents per pound; Whitaker Paper Company, 7.38 cents; and Barton, Duer & Koch Paper Company, 7.84 cents.

The following bids were also received for 1,000 pounds of red stereotype molding paper; Cauthorne Paper Company, at 12 cents per pound; Eaton, Dikeman Company, 13 cents less 2 per cent; Mathers-Lamm Paper Company, 12.639 cents; and Old Dominion Paper Company, 11.69 cents.

Herbert Lindemeyr has been awarded the contract for furnishing the Government Printing Office with 3,000 pounds of No. 1 gummed kraft paper in 24-inch rolls at 7.65 cents per pound, bids for which were received on January 26.

Harmon Paper Co. Elects Officers

[FROM OUR REGULAR CORRESPONDENT]

BROWNVILLE, N. Y., February 7, 1931.—The annual meeting of stockholders of the Harmon Paper Company was held this week, when directors and officers for the year were chosen. The directors elected were: John J. Warren, A. E. Warren, F. M. Boyer, M. P. Shaver and D. F. Warren. Later the following officers were elected: John J. Warren, president and treasurer; M. P. Shaver, secretary; A. E. Warren, assistant treasurer.

Paper Demand Increasing Slightly In Toronto

While Era of Small Orders Continues, Outlook For Future Is More Promising—Ontario Manufacturers Report Book, Ledger and Writing Machines Fairly Busy—Wrapping Paper and Bags In Moderate Request—Paper Board Plants Running Light.

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., February 9, 1931.—The month opened with slightly increased sales by the wholesale paper trade in Ontario, although generally speaking business is light in volume. There are indications, however, that a lot of paper orders that have been held back during the quiet period are beginning to be released and it is believed that ere spring arrives the trade will be enjoying some really good business. In the meantime the era of small orders continues, with more of them. Fine papers of the cheaper grades are in fair demand but the higher class stock is somewhat draggy and there is a corresponding light movement in the coarse paper field. Most of the wholesalers report a quiet month during January but in most cases the month yielded as much business as was anticipated.

The mill trade, for the most part, has started the year with a fair degree of activity and February is expected to see a return to normal business. Book, ledger and writing machines have been fairly busy but no branch of the paper manufacturing industry can boast of orders any distance ahead. The book paper department is perhaps a little busier than other branches and mills used to record orders ahead for some months. This has been reduced to weeks now and in many cases orders are right up to the machines. Consuming sources, however, are gradually increasing their requisitions and the outlook for spring business is bright.

On the other hand, there is a light call for wrapping and bags and this branch of the industry is decidedly slow. Light weight paper mills report satisfactory activity, with sales having kept up very well during the quiet period. There is quite a good demand for tissues and toilets and for the most part the year has opened up well for the light weight paper manufacturers. Business is still bad with the paper board mills and plants generally are running light. This means that the paper box industry is making only very light commitments for stock. Most of the paper box plants are comparatively inactive but preparations are being made for what is expected to be good business in the spring. There is a gradually improving demand for glassine and greaseproof lines, but volume orders are not being booked.

Pulpwood Operations In the North

Widely known in the northern section of Ontario is G. E. Andrews, extensive dealer in pulpwood at Massey, Ont. During the past season he took out about 16,000 cords of pulpwood, mostly poplar, but says that the demand is not nearly so good as in former years. He buys the bulk of his pulpwood from settlers, and, considering the figure paid them for other farm products, Mr. Andrews thinks that the prices for pulpwood are very fair. He states that the agitation for an embargo on pulpwood being shipped to the United States has driven some American mills to look for their supplies elsewhere. They are now getting some of their raw material from Russia and this has lessened the demand for Canadian pulpwood. Competition, also, has been decreased, which affects the prices proferred. This has resulted in a heavy loss to settlers in Northern Ontario. Mr. Andrews says that conditions in the North are not as bad as in other sections of the province, there being very little unemployment at and around Massey.

Canadian Paperboard Co. Active

There has been an appreciable improvement in activities of the Canadian Paperboard Company recently and operations at the Toronto plant are being carried on at well on to capacity. The Montreal unit is also fairly active but the plants at Campbellford and Frankford, Ont., are still closed down. While the situation in the paper board market is still somewhat unsatisfactory there are signs of improvement. Manufacturers have been striving to stabilize the industry during the past year and their efforts are reported to be meeting with satisfactory results. Canadian Paperboard is being operated by a receiver who has been successful in collecting practically all accounts receivable carried by the old management and has paid off the bank loans based on the security of these accounts and of the inventory. The last official report published toward the end of last year stated that operations were being conducted on a profitable basis. The company passed its preferred dividend in January, 1930. A receiver and manager was appointed in February last year and bond interest was deferred in April. Interest on bonds of the company's subsidiary, Quinte and Trent Valley Power Company, has also been deferred.

Aided Pulp and Lumber Industry

In spending $70,000 to fight a single forest fire in the Fort Frances area last summer, his department demonstrated the lengths it was prepared to go in protecting the pulp and lumber industries of the province by progressive measures, declared the Hon. William Finlayson, Minister of Lands and Forests, addressing the convention of Canadian Lumbermen's Association at the Royal York Hotel this week. For more than thirty days 250 men and 200 tons of equipment, aeroplanes and wireless sets had been employed in cutting down the fire, which, in thirty hours had spread across a 70-mile front in a district accessible only by air, the minister said. Last year the Government spent $2,000,000 on forest protection in contrast with $350,000 contributed by the lumbermen.

Notes and Jottings of The Trade

The Continental Paper Products, Ltd., Ottawa, who already manufacture "Lily" drinking cups, and who during 1930 commenced the manufacture of the "Tulip" cup line in Canada, have now available another addition to the Lily-Tulip line called "Paktite." The latter is a container on the same principle as the ice cream cup.

Entering a new and profitable market, the first trial shipment of special paper has been forwarded by the Westminster Paper Company, New Westminster, B. C., to Rhodesia, South Africa, by direct steamer from Vancouver. It is stated that Rhodesia offers a promising market for the products of the Westminster Paper Company. Regular export shipments are being made to New Zealand, Australia and China.

The F. N. Burt Company, Toronto, paper box manufacturers, etc., paid its dividend for the quarter ending December 31 on January 2. No bonus of 50 cents a share over and above the regular annual rate of $3 was paid, however, as in the preceding year.

The new curling rink constructed by the Spruce Falls Pulp and Paper Company, at Kapuskasing, Ont., is now in use and is proving a boon to sport lovers in the community.

J. E. Patterson, manager of operations of the Abitibi Power and Paper Company, a few days ago paid a visit of inspection to the company's plants at Iroquois Falls and Smooth Rock Falls, while F. L. Mitchell, assistant manager of operations, visited the plant at Pine Falls.

B. DeB. Millidge, manager of the Cornwall division of the

Howard Smith Paper Mills, and C. N. Candee, of the company's research department, were recent visitors in Toronto.

In the coming summer it is planned to extend considerably the work of reforestation which is being carried on by the Ontario Forestry Department on the sand plains north of Thessalon, Ont., where in the past three years some hundreds of thousands of young trees—mostly pine, white spruce and jack pine—have been set out. It is stated that the spruce will be of a size to provide pulpwood logs in from 50 to 60 years.

Expenditure of about $500,000 on extension and improvements to its plant at Thorold, Ont., is contemplated by the Ontario Paper Company. The plant is controlled by the *Chicago Tribune*. Details of the work have not yet been announced but it is proposed to proceed with it in the spring.

The Howard Smith Paper Mills have sent out the first folder of the 1931 Velvalur series, especially adapted to four color work. The sample contains a fine reproduction designed to show the suitability of Velvalur Super Value book paper for color printing.

Forest Engineers' Convention

The 23rd annual convention of the Canadian Society of Forest Engineers was held last week at Fredericton, N. B. A number of papers of marked interest were presented.

Two of the papers touched on forest education. Professor J. M. Gibson, dean of the U.N.B. Forest School, suggested a course in forest education, claiming that the three great essentials in that connection were field laboratory, model forest for demonstration, and experimental area.

W. Kisbaugh, of Iroquois Falls, Ont., assistant woods manager of the Abitibi Power and Paper Company, dealing with forest education from the viewpoint of a practicing forester, severely criticized existing courses of instruction, and advocated in the absence of a pre-forestry course, the extension of the course to five years, the elimination of many subjects and also specialization. He suggested more attention to English and kindred subjects, and the elimination of foreign languages, also more attention to engineering and less to natural science.

W. Robertson, of Ottawa, chief of the research division Dominion forest service, spoke upon the necessity of securing data by growth study, to ascertain whether or not nature is replacing the annual losses of 3,800 square miles of timber in Canada by cutting, and 3,500 square miles by fire.

Expansion of MacLaren Enterprises

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., February 9, 1931.—The James MacLaren Company, Limited, which recently inaugurated its new news print mill at Buckingham, Que., is embarking on a large expansion of its hydro-electric enterprises. It has just awarded to the Foundation Company of Canada the general contract for the construction of the Masson Falls power development of its subsidiary, the MacLaren-Quebec Power Company.

The new power development, with an installed capacity of 130,000 electrical horsepower operating under a head of 185 feet, will be an important addition to the hydro-electric plants of the Province of Quebec. The work will consist of a dam, control works and intake on the Lievre River, and a tunnel 25 feet in diameter inside the concrete lining and over a mile long, driven through solid rock at a depth of about 200 feet below the surface, through which the water will be led to the power house, discharging through a tailrace into the river about 1½ miles below the dam. The work will be commenced immediately and the plant is to be completed ready for the delivery of power by July 1, 1933.

Masson Falls are located on the Lievre River between the towns of Buckingham and Masson and about seventeen miles east of Ottawa. From the standpoint of power development the Lievre is one of the important tributaries of the Ottawa River.

The Foundation Company of Canada Limited, recently completed the paper mill of the James MacLaren Company Limited.

J. P. Lewis Co. Acquires Lewis, Slocum & LeFevre

BEAVER FALLS, N. Y., January 30, 1931—The J. P. Lewis Company interests have arranged to acquire the Lewis, Slocum & LeFevre Company, Inc., who, since 1913 have operated a pulp and paper mill at this place.

The Lewis, Slocum & LeFevre Company, Inc., was formed through a consolidation of the partnerships of Lewis & Slocum and Lewis, Slocum & LeFevre, following the death of James P. Lewis and John N. Slocum who were pioneers in the wood pulp and the pulp board industry in this section.

The properties consist of a ground wood pulp mill in connection with one of the finest water powers on the Beaver River, which, because of the Stillwater Reservoir, has the most uniform flow of any stream in the Adirondacks; the mill having a capacity of twenty tons per day with sufficient additional power available to increase this output to thirty tons, and a paper mill having a daily capacity of twenty tons of high grade board made from wood pulp. For many years this mill has been famous for its bottle cap board and it is understood that the manufacture of this grade will be continued in the future and that other grades known to the trade as having been originated by the J. P. Lewis Company will also be made.

Announcement is also made of the re-association with the Lewis interests of Lawson Ramage of Watertown, N. Y., who for about eight years was general superintendent of the J. P. Lewis Company mills. Mr. Ramage severed his connection with the Lewis mills about five years ago in order to assist his brother, Archibald Ramage, in the management of the mills of the Missisquoi Pulp and Paper Company of Sheldon Springs, Vt. Following the death of his brother and the passing of the control of the Missisquoi mills to other interests he was associated with the Brownville Board Company of Brownville, N. Y. Mr. Ramage will be active in the manufacturing and the sales promotion departments of the J. P. Lewis Company and will particularly devote much of his time to the operation of the Lewis, Slocum & LeFevre Company mill, which will be operated as a division of the J. P. Lewis Company.

Acquiring of the Lewis, Slocum & LeFevre properties will undoubtedly lead to a combined hydro-electric development of the powers at Beaver Falls where a head of 70 feet makes available a possible development of about 7500 horsepower. A considerable amount of electric power is now used in the operation of both the J. P. Lewis Company and the Lewis, Slocum & LeFevre Company mills, this power coming from the High Falls plant of the Beaver River Power Corporation located about four miles from Beaver Falls. This plant is laid out for a development of 10,000 horsepower under a head of 100 feet and is one of the most modern of the hydro-electric plants on the Beaver River. This is owned through the Beaver River Power Corporation, by the Lewis interests, and its entire output, some 30,000,000 kilowatt hours annually is absorbed by the Niagara-Hudson System which, in turn, transmits to the mills at Beaver Falls such electrical power as they require.

The Lewis interests have been indentified with the development of hydro-electric power in this section since 1912, and with the various Northern New York Companies now merged into the Niagara-Hudson System, and were members of the original syndicate which, in 1921, purchased from the late John B. Taylor the controlling interest in the Northern New York Utilities, Inc.

Elected Vice President of Whitaker Paper Co.

George Momberg was elected a vice president of the Whitaker Paper Company at a meeting of the board of directors held on January 17. Mr. Momberg has been president of the Michigan State Dealers' Association for the past year, and for several years was chairman of both the Fine Paper Group and the Coarse Paper Group in Detroit and a member of the Executive Council of the Franklin Typothetae.

Pennsylvania Paper Mills Running Part Time

While Book Paper Tonnage Was Well Maintained During January, Production of Wrapping Paper and Specialties Was More Conservative—Conditions in Distributive Field Continue Highly Competitive—Paper Stock Market Listless.

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., February 9, 1931.—While conditions continue highly competitive and the trade is still clearing out its old stocks of the past year, there is not the steadiness that could be effected if these stocks were disposed of. Despite the good work of the local Paper Trade Association, Wrapping Division, since the first of the year, harmful influences have been brought to bear by out of town competitors in the distributive branch of the industry. Local paper mills are more cautious in making their rounds of the trade at this time. Paper mills in the territory are either on part week schedule or running only on orders already on hand at full time. Mill agents in the fine paper group enjoyed a fairly well maintained tonnage business in January for such grades of book papers as are used by the large printers and publishers and on a few of the better grades of bonds and writings.

Wrapping paper and specialty manufacturers are more conservative in production and orders. Wrapping papers are moving in hand to mouth quantities to consumers despite the present attractive prices. Specialties drag along as the month ends. Roofing papers are dull. Bags are steady and holding values. Paper stocks are listless. A few of the better grades are in demand among book paper manufacturers and other high grade fine paper producers.

Paper Trade Association Elects Officers

All the old officers of the Philadelphia Paper Trade Association, with the exception of the newly elected treasurer, were re-elected at the annual meeting of the organization, held at the Down Town Club last Friday. The newly elected treasurer is M. K. Christine, of Raymond and McNutt, who succeeds A. Richard Hartung, of A. Hartung, Inc., fine paper dealers, who held the office for nine consecutive years. A tribute was paid by the president to the retiring treasurer for his long services. Other officers who will serve in the coming year and who held similar office last year are: President, W. S. Wilcox, Wilcox, Walter Furlong Company; vice president, N. A. Considine, Paper House of Pennsylvania and secretary, C. A. Wilder, Wilder Brothers. N. A. Considine was appointed delegate to represent the Fine Paper Division at the National Convention to be held in New York this month while T. H. B. Smythe, of J. L. N. Smythe Company, will represent the Wrapping Paper Division.

Paper to be Discussed by Engravers Club

The topic for discussion at the February 9th meeting of the Philadelphia Engravers Club, at the Elks Club, Broad and Vine streets, will be "Paper as Related to Engraving." Larry Gipp, of Raymond & McNutt, will be the speaker, and will include in his talk the manufacture of papers, their distribution and uses in the allied trades, illustrating his subject with motion pictures. Harry Fleming, of the Garrett-Buchanan Company, who represents die-wiping papers for that firm, was present at the January session and its "open house celebration."

Sabin Robbins Paper Co. Opens Baltimore Branch

The recently announced plan to open a Baltimore branch has been effected with the acquisition of an office for sales in the southern territory of the papers of the Sabin Robbins Paper Company, in Room 215 Hearst Tower Building. The Baltimore office is in charge of Edward A. McGough, who will represent the Philadelphia branch in sales and shipments to be made from the Quaker City warehouses. The Baltimore branch will be directed by the Philadelphia Manager, H. C. Riley and will cover Baltimore, Washington, Richmond, Norfolk, and Atlanta territory.

New Water System in Shryock Bros. Mills

A new water system which was recently installed in the mills of Shryock Brothers in Downingtown, Pa., and the improvement to the power which was effected with its completion, provides the board mills with modern operating units that enable the handling of orders with despatch and the speeding of production. Now that the water system is completed the mills are running on usual schedule of production of binders boards and with steady operation, as announced by S. S. Shryock at headquarters of Shryock Brothers. C. C. Dorsey, manager of the Downington Mills, who has been suffering with grippe, has recovered and is again at his desk.

O. H. Schell to Represent H. J. Grey Co.

Oswald H. Schell, who is one of the "old school" paper trade representatives of the Quaker City, will continue his long affiliations with the local industry as representative of the H. J. Grey Paper Company, New York, which has absorbed the business of Wilkinson Brothers, at one time identified with the Quaker City trade. Mr. Schell began his career in the industry with the original Scott Paper Company, when it was dealing in papers generally in this city. He later became representative for Wilkinson Bros. in the Philadelphia branch on its merger with the A. G. Ellicott Company and acquisition of the local headquarters at 6th and Ludlow streets. He continued to cover the Philadelphia trade after the sale of the interests of the Quaker City branch of Wilkinson Brothers by the D. L. Ward Company, and in recent years has traveled the industry for the New York headquarters of Wilkinson Bros. This firm is now merged with the Grey company and he will continue his old associations here.

How Hamilton Aids Unemployed

Alan Hyer of the Black-Clawson Company, Hamilton, Ohio, has sent the PAPER TRADE JOURNAL details of an interesting plan which has been adopted for handling the unemployment situation in that city. Mr. Hyer writes that this "method has been adopted in Hamilton for handling a serious unemployment situation and as far as we know, this particular plan is unique. We are offering this for your use in any way that you see fit with the idea in mind that it may be a suggestion to other communities that might be confronted with the same distressing conditions that prevailed here before this plan was put into effect. The one who gives is giving proportionately to his capacity to pay and is assured that every dollar will be spent judiciously. The one who receives is not an object of charity, but an employee who is earning an amount sufficient to provide himself and his family with the bare necessities of life.

"The participation of The Black-Clawson Company and the individual efforts of Mr. Kutter have been mentioned principally because our company is so well known to your readers and will make the article a little more personal."

Letter from Mr. Kutter

At a meeting of Hamilton's Unemployment Committee, held yesterday, I was asked to bring to the attention of a selected list of citizens, yourself included, certain facts regarding the handling

of our local unemployment situation, which we felt would be of special interest to you.

You are, of course, familiar with the broad outlines of the plan which is being pursued in providing jobs for the jobless—the contribution of funds on a monthly basis by men and women enjoying regular employment, to be paid as wages for public work under the administration of the City Manager. No welfare or relief work ever before undertaken in our community has met with such whole-hearted and spontaneous response. It started in the city offices and departments—with the police officers, firemen and other city employees. Then, the school teachers joined in. And now, without the spur of a "campaign," without publicity, except for brief news stories in the papers, without cajoling or undue pressure of any sort the movement has grown until the workers, officer people and executives of the majority of our leading shops, offices and retail stores have enrolled—in each case practically 100 per cent—to contribute a uniform percentage of their salaries or wages to the unemployment fund.

At the present writing, the total weekly contribution from all sources is $3,300.00. At the uniform wage of $3.00 per day, this means approximately one day's work per week for 1,100 men and women—approximately two day's work per week for 550 people, because with the single exception of a small percentage which must be paid to the State for the Workmen's Compensation Fund, *every dollar* of these funds is going directly into the pockets of these workers—not a single penny is used for administrations!

Extreme precautions are being taken to be seen to it that jobs are distributed on the most equitable basis. The individual status of each applicant for work is carefully investigated before he is certified as being eligible for a job. Only married men are employed, and men with large families are given more work than those whose families are small. Five days per week is the maximum—two the minimum.

Two days of work per week, at $3.00 per day, $6.00! You wonder perhaps how a family can live on that. And yet it is being done. Sometime with the aid of the Bureau of Social Work or the women of Hamilton who are working with the Bureau, sometimes without outside aid, $6.00 per week represents the difference between a chance to struggle through the Winter and—starvation. Furthermore, even when additional help is needed, the fact that a man is doing some work, earning some money, is of tremendous value in keeping up his morale, in saving him the moral degradation which he is bound to feel if he is obliged to become completely an object of charity.

The effect of this work upon the social life of our city can only be fully appreciated if comparisons are made with other industrial towns where the employment situation is not so well in hand. Bread lines and soup kitchens in Hamilton are conspicuous by their absence. "Floaters" here are practically unknown. And police records show Hamilton to be outstanding among similar communities in the absence of petty thefts. Whereas, in many places riots have occurred and anarchy threatens, a remarkable spirit of unity and harmony—of helping the other fellow and of appreciation of the other fellow's help is manifest here.

A tour around the city would reveal, the many concrete evidences of the fact that the city and its citizens are receiving full money's worth in the practical value of the work which is being done. The old canal bed, long an eye-sore and a menace to the public health, has been cleaned. Important improvements have been made in streets and parks. Public buildings have been cleaned and renovated. Indirectly, every citizen will benefit from this work, not only in having a cleaner, better city, but in actual saving in taxes.

As continued unemployment drains savings accounts, the number of applicants for jobs constantly increases. So members of the Unemployment Committee ask you, if you have not already made your pledge, to lend a hand in the work. We ask that you carefully consider what is being done, and decide what you can do to help. A letter from the Committee, with a pledge card enclosed, will reach you tomorrow.

You will see, upon reflection, that there is considerable more at stake in this project than simply tiding over a bad winter. We are faced with a crisis in our present-day relationships, with a challenge to our contention that our modern capitalistic system works for the good of all classes of people in America. If we fail now to meet an emergency, who can tell what the future may bring?

If every City in the U. S. A. would follow Hamilton's example we would pass through this period of depression with a minimum of hardship. We would create good fellowship such as we have never had before and above all we would not be threatened with some form of dole legislation, which if enacted would produce immeasurable harm to this nation.

Letter from Committee

The appeal which we are making to you in this letter is different than any which has ever been presented to you before.

It is not a solicitation for alms, but a suggestion that you provide funds to give a job—just enough of a job for a bare living, to one or more of your fellow citizens.

This undertaking is not competitive with the Community Chest or any other welfare activity. It is an extra activity designed to meet an emergency, to avert a crisis.

Mr. Kutter's letter of yesterday outlined the plan which has been evolved to provide work for the deserving among our unemployed citizens. It explained how the funds are secured, how they are administered.

We have made a wonderful start, but hundreds of men—heads of families—are still waiting for a chance to do a few days work for the city at $3.00 per day. If we could double the present income of $3,300.00 per week, there would still not be enough jobs to go around, and the number of applicants is increasing daily.

We do not presume to suggest how much you should contribute. 2 per cent of their income in some cases, 2½ per cent in others, is the precentage pledged by many hundreds of employees and executives in city offices, factories, and business houses. We do suggest that you think of your contribution in terms of the jobs it will provide. $50.00 per month, for example, will give two day's work per week to two men, will keep two *families* alive and self-respecting. And we do ask that you make your pledge for an indefinite period, to continue for the duration of emergency, or until you notify this Committee that you wish to discontinue it. A pledge card for your convenience is enclosed.

The committee is hopeful that no "drive," no organized canvass will be necessary to secure the funds which are needed—that the time and energy may be conserved for direct administration of the fund. If you care to discuss the matter with a member of the committee, one of us will gladly call at your invitation. Otherwise, may we urge that you send your pledge card by return mail?

Subscription Blank for Employees

We, the undersigned authorize the treasurer of The Black-Clawson Company, to deduct from our pay checks two and one half per cent (2½ per cent) for three months, beginning . . . . . The amount so collected to be transferred to Wm. B. Wick, treasurer of the City Unemployment Committee, and to be used principally to pay wages on jobs City Manager Price has agreed to provide for the unemployed.

No deductions to be made if pay check is less than $15.00 a week.

Repeat Order for Wagner Furnaces

The National Paper Products Company of Port Townsend, Wash., has placed an order with the J. O. Ross Engineering Corporation for two additional Wagner Furnaces. This recent order makes a total of three Furnaces for this mill.

Chicago Paper Market Shows Slight Improvement

Demand For Various Grades of Fine Paper Continues Spotty, Although Prices Are Steady and Unchanged—Coarse Paper Division Displays Stronger Tone Than of Late—Necessity of Restocking Warehouses May Lead to Sharp Turn

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., February 9, 1931—Chicago paper merchants and mill representatives are now of the opinion that if business is within five, ten or even fifteen per cent of what it was during the first quarter of 1929 and on a par with the same period in 1930 they will be fairly well pleased. January has opened up slowly and will close as a month of only very slight improvement. All eyes are now directed toward the meeting of the National Paper Trade Association to be held during the middle of February and there are hopes that jobbers will begin to step in and buy more heavily at and immediately following that time.

Inventories are judged to be about as low as they have been for a long time—so low, in fact, that paper men believe there must be a sharp turn in the near future brought about by the necessity for re-stocking of necessary lines. The problems of over-production, capacity and low prices continue to be the main topics of discussion when salesmen are not bending every effort to sell merchandise.

Drought in the north woods will probably cause a strengthening of ground wood papers within the very near future. Fine papers continue spotty, with good sales records here and there just about balancing equally poor records elsewhere. The market is fairly steady and prices unchanged, say reports. Books and covers remain unchanged over last week. The board market continues very quiet, while krafts, according to reports, seem to be weathering price reduction rumors fairly well. The coarse paper market in Chicago is said to be improving.

Paper Exhibits at Direct Mail Show

Considered by many the best local advertising exhibit shown in Chicago recently, the three-day display of direct mail literature and working tools, sponsored by the Advertising Council of the Chicago Association of Commerce, was concluded last week after having attracted some two thousand visitors to the displays at the Hotel LaSalle. Organized to include practically every application of direct mail advertising to the distributive process and problems, the exhibit was composed of the promotional literature of 112 concerns, many of them large, national advertisers.

More than fifty complete campaigns were exhibited, showing the place of direct mail advertising in typical industries such as the retailer, wholesaler, financial house, industrial plant, insurance company, radio manufacturer, automobile manufacturer, public utility organization, paper house, oil company, refrigerator manufacturer, etc. In many cases the displays were labeled with the purpose of the campaign and the actual results achieved. Charts showing the place of direct mail advertising in typical industries and illustrating the various sub-divisions and their proper procedure were also exhibited.

Paper men, in discussing the exhibits, were of the opinion that the well planned campaign would be a fine stimulus to the consumption of paper for direct mail advertising purposes in the Chicago district. Included in the educational exhibitors lists were many well known manufacturers and jobbers and the following paper houses: American Writing Paper Company, Chicago Paper Company, Swigart Paper Company, Whitaker Paper Company, General Box Company and the Gaw O'Hara Envelope Company.

Harry Johnson Addresses Paper Salesmen

A new series of interesting weekly luncheon meetings was inaugurated last Monday, January 26, by the Chicago Division of the Salesmen's Association of the Paper Industry. It fell to Harry Johnson, of the Brown Company, to start the ball rolling on a series of programs at which each member of the association will discuss certain problems of interest to his organization and to the industry as represented by the salesmen. Mr. Johnson gave an interesting and informative discussion on Alpha pulp and explained in detail some questions concerning Alpha, Beta and Gamma pulps. He went into detail concerning experiments and tests that have been done in the past on Alpha fiber and discussed the relativity of tests from the standpoint of their fallibility or infallibility.

Paper Merchants Discuss Problems

The Chicago Paper Association, at its regular meeting on Tuesday evening, January 27, decided to investigate ways and means of getting away entirely from doing business with small peddlers without any financial responsibility who have, in the past, peddled merchandise for resale at ridiculous prices and without much if any regard for business ethics. The tone of the meeting indicated that the members of the Chicago Paper Association as a group were very anxious to do away with this nuisance and to cease recognizing or doing business with peddlers who, without any backing, any overhead, any responsibility whatsoever, have the harmful habit of going into the market and, as one member expressed it, "messing things up." A committee was appointed at the January 27 meeting to discuss the matter further and members were urged to give the matter their earnest consideration in order that the problem might come up for further discussion, and perhaps final solution, at the next meeting on February 10. "Some of the members," stated an executive of the Chicago Paper Association, "are rightfully tired of having others do business with these peddlers who lower the tone of the business, disrupt the market and who, through their practices, do far more harm than good. We are hoping to work this problem out as another distinct step toward placing the coarse paper business in Chicago on a distinctly higher plane."

News of the Trade

Right in step with the Chicago Automobile Show, Bermingham & Prosser, 128 South Sangamon street, Chicago, issued a folder describing Oxford Mainefold, using as the central illustration an illustration of an automobile tire as evidence of the reproducing possibilities of Oxford.

Warrens Estimator's Reference Book and a book on "How to Plan Printed Pieces to Save Time and Money," the former for the buyer of printing and the latter for the customer, are featured in the latest direct mail piece from the Chicago Paper Company, distributors of Warrens Papers.

Ellis Hughes, formerly head of the Ellis Hughes Paper Company, 413 South Dearborn street, Chicago, has discontinued that organization, according to reports, and is now connected with the Mid West Paper Company, also of Chicago.

The Cromwell Paper Company of Chicago, manufacturers of Tympan papers for printers, has placed its advertising account with Hurja, Chase & Hooker, Inc., Chicago Advertising Agency. A series of advertisements is being planned to show the benefits of Tympan paper for securing the best reproduction of printing work.

A Chicago advertising agency, the Ellis T. Gash Company, has been appointed to direct the advertising of the Patten Paper Company, Ltd., of Appleton, Wis., manufacturers of Patten Mimeo-Bond and Patten Chromart.

An Old Timer's Reminiscences

By Joseph H. Wallace, Pres. Joseph H. Wallace & Co.

(Continued from last week)

Holyoke in the Gay Nineties—Its mills were the representative mills of the paper industry and paper makers owned them. That was Holyoke! Then came the combinations of mills—the day of combinations that should eliminate overhead and incidentally the men who had made the industry. Somehow it takes a lot of doing before the combinations thrown together in a hurry become real organizations. It appears that perhaps management is harder to build than mills. The combination of several Holyoke mills with some others that made writing papers called for some appraisals and made work for engineers. In looking at an old note book we are reminded that one A. Aldrich of Beloit, Wis., was employed to value paper machines—and that machines of 66-inch to 76-inch width of vintage of the '70's, were valued at $10,000 to $12,000 in operation. Machines of 76-inch to 86-inch width built in the '80's, appeared to be worth $13,000 to $26,000—and the *Modern* machines built in the '90's or late '80's, of widths from 86 inches up to 120 inches, were appraised at $23,000 to $40,000 as complete operating units. Page old man Aldrich, please! What do you value modern machines at these days?

Mostly Built by Rice, Barton & Fales

Most of the paper machines in Holyoke at that time were built by Rice, Barton & Fales. It appeared that when a machine was wanted, Charlie Barton just naturally went to Holyoke and sold them one, and it was made to fit what they wanted to pay—in those days as it is now. Charlie wouldn't value the machines he had sold—he was too wise!

I had the pleasure of working on many alterations to mills, the most noteworthy being the Crocker Manufacturing Company, which was rebuilt from end to end while running—and it was a good job. Clif Crocker and Frank McElwaine were a great team. Reardon, Toole, Phillips—real paper makers—long since gone, were always ready to answer questions about paper.

Mills were springing up in Maine, New York, Michigan and Wisconsin, then Canada. The International Paper Company was formed taking George Hardy as chief engineer. Then Tower offered me a partnership, and Tower & Wallace moved into New York City.

An Important Line of Work

During 1898, 1899 and 1900, Tower & Wallace had work for the following mills:—

Fletcher Paper Company—Alpena, Mich.
Uncas Paper Company—Norwich, Conn.
Oswego Falls Pulp & Paper Co.—Fulton, N. Y.
Nekonegan Paper Company—Oldtown, Me.
Peninsular Paper Company—Ypsilanti, Mich. (rebuilding mill after fire).
B. D. Rising Paper Company—Housatonic, Mass.
Dalton Power Company—Lunenburg, Vt.
Oxford Paper Company—Rumford Falls, Me., besides rearrangements and additions.

Made Fox River Valley Famous

The writer became acquainted with J. A. Kimberley—and Messrs. Shattuck and Babcock, three of the big four who built Kimberley-Clark and Shattuck-Babcock units and made the Fox River valley famous. My keenest remembrance of Mr. Kimberley was his kidding me about certain melodramatic language in a report that I made on the rebuilding of the mill and water power at Niagara, Wis., a property that had just been acquired by Kimberley-Clark interests. Mr. J. A. Kimberley surely had a sense of humor among other senses of a marked character. Your continued health, sir and my very best wishes. Peter Thom was active in those days and a wonderful paper maker. Billy Ryan was in charge of the property and a regular fellow, whose companionship was a great joy while I was engaged at Niagara, Wis.

When we finished the mill at Alpena, Mich., the Fletcher's—Frank and Al paid me for completion of our work, insisting on giving me $200 in cash, and then made me play poker until the train left. I sure was lucky that the train came into Alpena that night on time and took me away while I was still ahead of the game. Frank and I had one grand common passion—i.e., boats and their navigation, and when he was in New York, I often had a meal with him at the New York Yacht Club. I met Mr. and Mrs. Al in London, England many years later, and we did London together in a very enjoyable manner.

Impersonates Tim Hurst

H. H. Everard, F. H. Milham and George Bardeen all had schemes for paper mills that brought us their acquaintance. George Bardeen met me at the station at Otsego, Mich., on Decoration Day, 1899—with a gun—and threatened me if I stopped there. We then planned and executed a raid on one of George's pals who was selling contrabrand liquor and scared him out of several quarts before he saw George after which he gave us all we wanted. George was full of pranks, and at a ball game that afternoon introduced me as Tim Hurst, a National League umpire hired for this most important game—between Allegan and Otsego. So I umpired the game—and had the town policeman arrest George for throwing bottles at me. Bardeen was an irrepressible youngster and never got too old to have a joke.

At Fulton, N. Y., it was our privilege to know Forrest G. Weeks and H. L. Paddock, and to do some interesting work for them in the building of Oswego Falls Paper Mills.

Theodore Burgess of Berlin, N. Y., had us make some plans for enlarging his sulphite pulp mills—ridiculed our ideas, browbeat and insulted us and then said "I think your plans are all right," which was Burgessing according to schedule.

The Nekonegan Mill at Oldtown, Me., was designed for J. Fred Webster the most consistent gambler it was ever my pleasure to meet. He wouldn't pay for a drink—he would throw dice with the bartender to double or quit, and generally he controlled Lady Luck and won. The club at Bangor, Me., was quite a place for high poker—Webster and Fred Ayers being the high priests of the cult.

An Idea That Wasn't New

The driving of a paper machine with a variable speed twin engine with cranks quartering was an idea of mine in 1898—and was, as far as I knew, first applied in the mill of the Peninsula Paper Company, Ypsilanti, Mich. The United States Patent Office thought so anyway, because a patent was issued to Tower & Wallace on the idea. Several years afterward the writer saw the same idea operating at Darwen in Lancashire, England, on a very old paper machine, and found the idea was 25 years old when it occurred to him. Afterwards we were told of the same invention by another concern in America, who kept the idea secret for some years while it was going merrily on all about them. It was a good idea anyway—whoever got it first, and it eliminated for the first time the cone belts to drive variable speed back lines on Marshall drives for paper machines. By the way, the Marshall Drive was invented by George Marshall of Montague Paper Company, Turners Falls, Mass.—one of the outstanding paper makers of his day. Three of his nephews: Edward, Frank and George, are still living, born paper makers. The Marshall Refining Engine was their contribution to the art.

At Uncas Paper Company, Norwich, Conn., in 1898, was in-

stalled the first reinforced concrete floor we ever heard of in a paper mill. Who knows of an earlier installation?"

During 1898, 1899 and 1900, we had extensive surveys and reports in Newfoundland; Bay of Chaleur, Wisconsin; Sault Ste. Marie, Ontario; Virginia; Maine; Michigan; Miami Valley, Ohio; and elsewhere. Howard Friend, Alexander Campbell, F. H. Clerque, Charles Mullen, Garrett Schenck and many others gave us so much preliminary work that we were *busy*.

Then came the Oxford Paper Company project and contact with Hugh J. Chisholm, the biggest paper man of his day. The International Paper Company was his own project, and he was its president and dominant factor. Rumford Falls Power Company was also one of his pets, and the Oxford Paper Company was a whale of a job for those days of mostly two-machine mills. It was a compliment to Tower & Wallace.

Tower & Wallace, and Weber & Fields were contemporaries, neighbors, and popular units in the last few years of the Gay Nineties, when the Hoffman House Bar at 24th street on Broadway, and the Holland House at 28th street, on 5th Avenue, were away up town and the *last word* in New York's high life among the Elect.

(To be continued)

Connecticut Valley Superintendents Meet

The Connecticut Valley Division Paper Mill Superintendents held their annual meeting, Saturday, January 17, at the rooms in Holyoke. After an interesting discussion on the problems of the paper superintendents, the election of officers took place, following which a sociable hour was had. It was voted to hold the next meeting in New Haven and Chairman Weiser was authorized to make all arrangements, the time to be set by him.

The following officers were elected to serve during the coming year: Chairman, Lewis E. Weiser, New Haven; First Vice-Chairman, A. B. C. Drew, New Bedford; Second Vice-Chairman, Claude H. Smith, Holyoke; Third Vice-Chairman, Richard Driscoll, Lee, and Secretary-Treasurer, Forbes Wood, Holyoke.

The above officers and the following will constitute the Board of Governors: John J. White, B. W. Smith, P. S. McDonnell, E. W. Bush, R. G. McCorkindale, A. T. Barnett, Arthur Wyman, Joseph Bario, W. E. Hogan, L. M. Yoerg, John Leishmann, Geo. S. Carroll, T. F. Rogan, T. M. Pomeroy, James M. Geraghty, M. V. Horgan, John H. Browne, Leonard L. Taylor, Chas. Champion and L. D. Frisbie.

A committee consisting of John J. White, George W. Reardon and Earnest W. Bush was appointed to draft resolutions of sympathy on the death of Charles N. Mooney, of Lee. A vigorous campaign for new members is to be made under the direction of Chairman Weiser.

Bagley & Sewall Changes

[FROM OUR REGULAR CORRESPONDENT]

WATERTOWN, N. Y., February 7, 1931.—A reorganization of the executive staff of the Bagley & Sewall Company was made at the annual meeting this week with the resignation of Charles D. Bingham as a director and treasurer. He has been connected with the concern in a leading capacity for the past fifty years and his advanced age is believed to have influenced his decision to retire. It is understood, however, that he will continue to act in an advisory capacity and at the meeting this week the stockholders adopted a resolution expressing appreciation of his many years of service. Carroll L. Thompson was chosen to succeed Mr. Bingham as treasurer while Virgil K. Kellogg was named a director. Harry C. Kinne, assistant sales manager, was promoted to the position of secretary. The complete board of directors elected includes: Charles W. Valentine, Clarence E. Kinne, Carroll L. Thompson, Edward S. Lansing and Virgil K. Kellogg. At a subsequent meeting of directors, C. W. Valentine was re-elected president; E. S. Lansing and C. E. Kinne, vice presidents; Carroll L. Thompson, treasurer, and Harry C. Kinne, secretary and sales manager.

WISCONSIN MAKES GOOD REPORTS

(Continued from page 11)

a meeting of the Marinette, Wis., school. The former had an attendance of 400. At the next Neenah-Menasha session, M. G. Hoyman, safety director of the Kimberly-Clark Corporation, will be chairman, and Garrett Burgess, of Buffalo, N. Y., will speak on "Training Men for Battle."

Another school has been started for employees of the Nekoosa-Edwards Paper Company, Nekoosa and Port Edwards, Wis., with many from both mills in attendance. Elwood T. Bailey gave the opening address. Franz Rosebush, of the Nekoosa-Edwards company, is in charge of the arrangements.

News of the Industry

In view of protests on the raising of the level of Lake Winnebago from 15 inches to 21¼ inches, the War Department has ordered a hearing to be held at Menasha, Wis., at 1:30 p.m. February 24. Government engineers will be present to hear arguments pro and con. The level of the lake was ordered restored to its old basis of 21¼ inches above the crest of the control dam at Menasha, in view of protests from paper mills having a lack of sufficient water for power, and of navigation and sanitation interests. Cities of the lower Fox River Valley have protested the low level and recently obtained the order raising the height of the lake storage. The upper valley cities have opposed the change and were able to gain consent for the hearing.

Four papers were to be presented at the monthly meeting of the Lake States Section of the Technical Association of the Pulp and Paper Industry, scheduled February 10 at Hotel Menasha, Menasha, Wis. They were: "Printing Inks and Their Application to the Paper Industry," by R. A. Kerley, of the Timmerman Ink Corporation, Menasha; "Welded Rotary and Stationary Alkaline Digesters," by H. H. Needham, of the A. O. Smith Corporation, Milwaukee, Wis.; "Riveted Sulphite Digesters," A. C. Koebke, Manitowoc Engineering Works, Manitowoc, Wis., and "Sulphite Digester Linings," by C. F. Richter, Stebbens Engineering and Manufacturing Company, Watertown, N. Y.

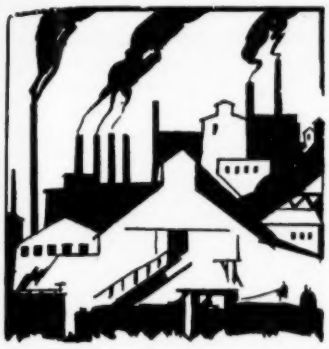
Approximately $150,000 will be spent by the U. S. Government on the new power dam at Kaukauna, Wis., to replace an aged structure made of wood. The new construction will be of concrete and steel, with eight steel sluice gates between heavy abutments, and two large concrete spillways.

Lack of snow has caused logging operations in northern Wisconsin to be reduced about 50 per cent this winter, according to estimates of large companies engaged in this work. The supply of pulpwood going into the market therefore will be affected. There will not be a shortage on this account, however, as the mills in many cases have not consumed their usual large quantities and therefore have a liberal supply on hand.

Dexter Sulphite Paper Mill Active

[FROM OUR REGULAR CORRESPONDENT]

DEXTER, N. Y., February 7, 1931.—Improved conditions are noted at the plant of the Dexter Sulphite, Pulp and Paper Company and it was announced this week by officials that the paper mill had returned to full time schedule. An increased volume of orders is responsible for the adoption of the new capacity schedule in the paper manufacturing departments, which only a few weeks ago were running three and four days a week. Under the present system the sulphite mill is running on curtailed schedules and the bag factory at about sixty per cent of capacity. The working force is now composed of 350 men while under normal conditions about 75 additional workers are generally employed. Officials claim that conditions have improved since early last month while orders are being booked more freely. It was also stated that the company was operating under better water power conditions which had a bearing on the curtailed schedules during the past few months.



Section of the

COST DEPARTMENT

of the

American Paper and Pulp Association

Edited by T. J. Burke C. A. Director Cost Dept.

What Price Prosperity In The Paper Industry?

If "Financially Unfit" Will Withdraw or Operate on Sound Financial Basis, Prosperity Should Return to Industry

By Thomas J. Burke, C. A.[1]

During 8 years (1921-1928) one-third of corporations making and converting pulp and paper products failed to make profits. In 1928 they did one-fifth of the business and lost $33,000,000.

Why? Because they are financially unfit. Under-capitalized to the extent that (December 31st, 1928) current liabilities exceeded current assets $178 to $100, they are forced to sell at any price to meet pressing demands for cash. Federal Tax Returns prove necessity for financial house-cleaning.

Before we attempt to answer the question What Price Prosperity in the Pulp and Paper Industry? it might be well to define what we mean by "prosperity." A well-known dictionary defines it, as, "Successful progress in one's enterprises," and that is the definition, we have in mind, in writing this article.

As a new year is now starting, every one is seeking constructive ideas which may help in bringing back prosperity, that is "Successful Progress in Profits." for our industry. If we could scrap 10 per cent or 15 per cent of our capacity, we would still have a healthy surplus, and our chances for making reasonable profits would be immeasurably better. Not only because the capacity would then more closely approximate the demand, but because certain elements in each group in our industry would be eliminated, which elements we believe, are now the leading factors in reducing prices to unprofitable levels. This is not because they do not know what their costs are, nor what a profitable level is, but rather because their financial situation is so precarious, and their working capital so limited, that they are constantly forced to push their products out on the market, irrespective of price, in order to obtain working funds needed immediately, to meet their constantly pressing liabilities.

Such at least, is our opinion, after a careful study of certain data taken from income tax returns, published by the United States Treasury Department, which show very clearly and definitely, the variance in the gross profits made by two-thirds of our corporations, which succeeded in making some profits annually, and the one-third which for the past eight years at least, has reported annual losses. In addition, these data, as will be seen from later exhibits, bring out very forcibly the financial difficulties under which the loss-making corporations are operating their businesses.

1928 Good Business Year

It should be understood, that the data on which our conclusions are based, refer primarily to the year 1928, and have only recently been published by the Treasury Department. 1928 was a good normal business year, and one in some ways remarkable, because the range of fluctuations in the production of pulp and paper products, as well as in the prices of raw materials and finished products, was comparatively narrow. These factors should be borne in mind when studying the accompanying statements and figures. In some cases, 1927 figures have also been given merely for comparative purposes. It should also be noted, that the figures refer entirely to returns by corporations, and do not include those made by individuals and partnerships.

One-Third Active Corporations Operate at Loss

We will first quote the figures showing the number of corporations making "Pulp, Paper, and Products," which made profits, and the number which made losses during the years 1921 to 1928 inclusive, as follows:—

TABLE A

Year	Total Active Corporations Reporting (100%)	Corporations Reporting Profits No.	Corporations Reporting Profits %	Corporations Reporting Losses No.	Corporations Reporting Losses %
1921	1676	730	43.56	946	56.44
1922	1769	1086	61.39	683	33.61
1923	1815	1240	68.32	575	31.68
1924	1886	1204	63.84	682	36.16
1925	1940	1288	66.39	652	33.61
1926	2024	1365	67.44	659	32.56
1927	2028	1386	68.35	642	31.65
1928	2019	1345	66.62	674	33.38

It will be noted from this statement, that in 1921 56.44 per cent of our corporations reported losses, that of course being the high point. By 1927 this percentage had been reduced to 31.56 per cent, increasing to 33.38 per cent, almost exactly one-third, in 1928. These percentages represent the percentage of *active corporations reporting* which are, of course, exclusive of a small number of *inactive corporations* not in operations.

The increase in the total number of *active* corporations reporting from 1921 to 1928, was 543, or 32.4 per cent. Excluding 1921, which, of course, was an exceptionally bad year, it will be seen however, that the ratio between corporations reporting profits and those reporting losses, remained approximately two to one, also that the number reporting in the three years, 1926, 1927 and 1928 remained practically stationary.

The only comfort to be derived from these figures is the fact

[1] Director, Cost Department, American Paper and Pulp Association

that in both 1927 and 1928, as compared with corporations in other manufacturing industries, a larger percentage of the number of corporations in our industry *reported a net profit*, than did the corporations in any other manufacturing industry, as can be seen from the following exhibit:—

TABLE B

	With net incomee		No net income	
	1927 %	1928 %	1927 %	1928 %
Food, Products, Beverages & Tobacco	59.47	58.96	36.27	36.26
Textile & Textile Products	59.49	55.67	38.57	42.03
Leather & Leather Products	60.06	55.82	37.45	41.60
Rubber & Related Products	51.14	48.27	43.36	45.78
Lumber & Wood Products	53.45	53.98	42.90	42.37
Paper, Pulp & Products	66.54	64.26	30.82	32.39
Printing and Publishing	63.06	63.54	33.98	33.28
Chemicals and Allied Substances	54.78	56.41	40.00	37.59
Stone, Clay & Glass Products	55.25	55.15	40.07	39.84
Metal and Metal Products	56.00	59.20	40.37	36.14
All other Manufacturing Industries	50.68	50.36	42.15	41.90

However, our percentage of profit-making corporations dropped from 66.54 per cent to 64.26 per cent of the total reporting, a loss of 2.28 per cent. The loss-making corporations increased by 1.57 per cent and the inactive by .71 per cent. It will be noted that our friends the printers and publishers are now running a very close second, the number of their profit-making corporations having *increased* nearly ½ of 1 per cent, instead of *decreasing*, as did ours and it must be very doubtful whether we shall still be in the lead when the 1929 figures are published.

However, we are not concerned with what other industries are doing but with what can be done to improve our own financial situation and to stop the leak of millions of dollars annually lost through bad business management.

An analysis of the Income Statement of *profit-making corporations* for 1927 and 1928 shows clearly that profits were merely nominal, considering the risks undertaken, the average total profits from operations amounting to only 5.78 per cent and 7.15 per cent respectively on a total business of approximately one and a third billion dollars. Total taxes paid amounted to more than 45 per cent of the total dividends paid in 1927 and to approximately 36 per cent in 1928.

Another reason for studying the average profit made by the profit-making corporations as shown in Table C is to make possible a comparison later with the loss-making corporations.

TABLE C

CORPORATIONS MANUFACTURING AND CONVERTING PULP AND PAPER PRODUCTS WHICH REPORTED NET INCOME DURING 1927 AND 1928—ANALYSIS OF INCOME STATEMENTS

	1927		1928	
	Amount	Per cent	Amount	Per cent
Gross Sales	$1,341,846,975	100.00	$1,337,344,889	100.00
Cost of Goods Sold	979,709,542	73.01	969,681,054	72.52
GROSS PROFIT FROM SALES	362,137,433	26.99	367,663,835	27.48
Miscellaneous Deductions	204,304,504	15.22	163,350,025	12.23
Depreciation	46,773,496	3.48	46,042,851	3.64
Compensation of Officers			29,233,635	2.20
Interest Paid	19,620,577	1.49	17,727,647	1.32
Taxes (excluding Federal Inc.)	14,893,593	1.11	15,112,329	1.16
Bad Debts	3,231,385	.24	3,044,795	.23
Depletion	1,338,272	.09	1,414,570	.08
TOTAL DEDUCTIONS	$290,161,827	21.63	$275,925,852	20.68
Net Profits from Sales	71,975,606	5.36	91,737,983	6.80
Other Profits from Operations	5,707,343	.42	4,743,657	.35
TOTAL PROFITS FROM OPERATIONS	$77,682,949	5.78	96,481,640	7.15
Miscellaneous Receipts	$39,272,854	2.93	$14,453,541	1.08
Interest Received	7,032,008	.52	7,654,329	.57
Dividends Received	7,920,893	.59	10,525,268	.79
Bond Interest Received	1,585,763	12	1,546,602	.12
TOTAL INCOME FROM OTHER SOURCES	$55,811,518	4.16	34,179,740	2.56
Total Net Income Before Deducting Federal Income Tax	$133,494,467	9.94	130,661,380	9.71
Federal Income Tax	16,063,362	1.19	13,768,110	.98
NET INCOME AVAILABLE FOR DIVIDENDS	$117,431,105	8.75	$116,893,270	8.73
Cash Dividends Paid	$58,710,752	4.37	$68,330,604	5.11
Stock Dividends Paid	9,704,811	.72	11,958,589	.89
Total Dividends Paid	$68,415,563	5.09	$80,289,193	6.00
No. of Corporations Reporting	1386		1345	
% of Corporations Reporting	68.34%		66.48%	

Improved Showing for 1928

As between 1927 and 1928, while the gross profit made by the money-making corporations increased (in round figures), 5½ million dollars, approximately ½ of 1 per cent of the gross sales, it will be noted that the *number* of such corporations decreased by 41, also that the gross sales decreased 4½ million dollars and the "cost of goods sold" by 10 million dollars.

In the 1928 figures, "compensation of officers" has been taken out of miscellaneous deductions, and it will be seen this item amounts to 2.2 per cent of gross sales.

The "total deductions" decreased approximately 1 per cent. With the exception of "interest paid," which decreased nearly 2 million dollars, the other items showed remarkably little difference, depreciation remaining practically stable at 46 million dollars or about 3½ per cent of gross sales.

Total "Profits from Operations" increased nearly 20 million dollars, about 1½ per cent, due to above mentioned increase of ½ of one per cent in gross profits, and decrease of 1 per cent in total deductions.

"Income from Other Sources" showed a decrease of over 1½ per cent, thus more than off-setting the increase in profits from operations, but as the amount paid for Federal Income taxes decreased .2 per cent, the decrease in net income available for dividends amounted to only .02 per cent. Dividends paid in 1928 amounted to exactly 6 per cent of gross sales, an increase of .91 per cent over 1927.

With the exception of the decrease in the number of corporations reporting a profit, the 1928 showing is, of course, an improvement over that for 1927, but a net profit on operations of only 7 per cent is nothing to boast about, especially in a good business year such as 1928. It's a good showing, however, when we consider that for every two corporations making that profit on the average, there was one that made no profits at all, but on the contrary, lost some of its capital.

Before considering the Income Statements of the loss-making corporations, we will show a re-arrangement of the figures of the profit-making ones for 1928, to include in the "cost of goods sold" certain items, which might reasonably be included therein, as follows:—

Item	Amount	% Gross Sales
Depreciation	$46,042,851	3.46
Compensation of Officers	29,233,635	2.20
Taxes (excluding Federal Income)	15,112,329	1.16
Bad Debts	3,044,795	.23
Depletion	1,414,570	.08
	$94,848,180	7.13%

There can be no question raised as to the fact that these items should be included as part of the "cost of goods sold." As a matter of fact, a portion of the "miscellaneous deductions" should also be so included, but it is impossible to say how much. We know, for instance, that item includes "rents on business property" as well as "repairs" which should form part of the "costs of goods sold" figure.

The 1928 figures would then read as follows:—

TABLE D

	1928	
	Amount	Per cent
Gross Sales, less returns and allowances	$1,337,344,889	100.00
Cost of Goods Sold	1,064,529,234	79.65
GROSS PROFIT FROM SALES	$272,815,655	20.35
Miscellaneous Deductions	163,350,025	12.23
Interest Paid	17,727,647	1.32
TOTAL DEDUCTIONS	$181,077,672	13.55
NET PROFIT FROM SALES	$91,737,983	6.80

By including these items in "Cost of Goods Sold," the Gross Profit is reduced to 20.35 per cent. Attention is drawn to this fact, because it is important to note that even the profit-making corporations, on the average, must add 25.55 per cent to their "cost of goods sold" figure, to show a gross profit of 20.35 per cent and a net profit on sales of 6.80 per cent. We will now examine

the figures of corporations, which reported losses during 1927 and 1928.

Loss-Making Corporations

TABLE E

CORPORATIONS MANUFACTURING AND CONVERTING PULP AND PAPER PRODUCTS WHICH REPORTED LOSSES DURING 1927 AND 1928—ANALYSIS OF INCOME STATEMENTS

	1927		1928	
	Amount	Per cent	Amount	Per cent
Gross Sales, less Returns & Allowances	$254,435,084	100.00	$327,227,347	100.00
Cost of Goods Sold	213,540,945	83.93	264,433,014	80.80
Gross Profit from Sales	40,894,139	16.07	62,794,333	19.20
Miscellaneous Deductions	41,937,328	16.48	49,954,558	15.27
Depreciation	9,887,653	3.89	16,647,757	5.09
Compensation of Officers			6,603,162	2.02
Interest Paid	9,929,179	3.90	18,440,831	5.64
Taxes (excluding Federal Income)	3,354,665	1.32	4,201,300	1.28
Bad Debts	1,025,927	.40	1,368,411	.42
Depletion	154,822	.06	861,478	.27
TOTAL DEDUCTIONS	66,289,574	26.05	98,077,497	29.99
Net Losses from Sales	25,395,435	9.98	35,283,164	10.79
Profits from Other Operations	1,154,722	.45	1,129,134	.65
TOTAL LOSSES FROM OPERATIONS	24,240,713	9.53	33,154,030	10.14
Miscellaneous Receipts	3,274,243	1.29	7,760,448	2.38
Interest Received	7,352,074	2.89	10,434,636	3.19
Dividends Received	1,383,400	.54	5,244,329	1.60
Bond Interest Received	105,022	.04	76,072	.02
TOTAL INCOME FROM OTHER SOURCES	12,114,739	4.76	23,515,485	7.19
TOTAL NET LOSSES	12,125,974	4.77	9,638,545	2.95
Cash Dividends Paid	7,155,248	2.81	12,412,226	3.80
Stock Dividends Paid	223,731	.09	14,476	....
TOTAL DIVIDENDS PAID	$7,378,979	2.90	$12,426,702	3.80
No. of Corporations Reporting Losses	642		678	
% Active Corporations Reporting	31.66		33.52	

Percentages Compared

In order that the differences between the groups of profit-making corporations and corporations making lossess may be clearly visualized, the percentages for each group have been placed side by side and the differences extended. The statement shows percentages in terms of Gross Sales for profit-making corporations (Col. A), loss-making corporations, (Col. B), and differences (Col. C).

TABLE F

	For Year 1928		
	Col. A %	Col. B %	Col. C %
Gross Sales less Returns and Allowances	100.00	100.00	....
Cost of Goods Sold	72.52	80.80	8.28
GROSS PROFITS FROM SALES	27.48	19.20	—8.28
Miscellaneous Deductions	12.23	15.27	3.04
Depreciation	3.46	5.09	1.63
Compensation of Officers	2.20	2.02	— .18
Interest Paid	1.32	5.64	4.32
Taxes (excluding Federal Income)	1.16	1.28	.12
Bad Debts	.23	.42	.19
Depletion	.08	.27	.19
TOTAL DEDUCTIONS	20.68	29.99	9.31
Net Profits from Sales	6.80		—6.80
Net Losses from Sales		10.79	10.79
Profits from Other Operations	.35	.65	.30
TOTAL PROFITS FROM OPERATIONS	7.15	....	7.15
TOTAL PROFITS FROM OPERATIONS	7.15	.....	—7.15
Miscellaneous Receipts	1.08	2.38	1.30
Interest Received	.57	3.19	2.62
Dividends Received	.79	1.60	.81
Bond Interest Received	.12	.02	— .10
TOTAL INCOME FROM OTHER SOURCES	2.56	7.19	4.63
TOTAL NET INCOME	9.71		—9.71
TOTAL NET LOSSES		2.95	2.95

(— Minus sign denotes Col. B deducted from Col. A).

Outstanding Differences

This statement is very significant for the only expense, the percentage for which was lower in the loss-making corporations (Col. B), than in the profit-making corporations (Col. A), was "compensation of officers" which shows a decrease of .18 per cent viz, from 2.2 per cent of gross sales to 2.02 per cent. This decrease represents a total of $595,839 or $878 less per corporation.

In every other instance, the costs and expenses show increases in the case of the loss-making corporations over the profit-making ones. The outstanding items, of course, are the "cost of goods sold," in which the increase is 8.28 per cent, "interest paid" increase 4.32 per cent and "miscellaneous deductions" 3.04 per cent, a total of 15.64 per cent, sufficient to convert their "net-lossess from sales" of 10.79 per cent into a net profit of 4.85 per cent.

Unsuccessful Corporations Heavy Borrowers

Omitting for the present the increase in "cost of goods sold," we wish again to draw particular attention to the item of "interest paid." In our January 1930 issue of "Pulp and Paper Profits," in analyzing the 1927 income tax figures we stressed the fact that for that year the profit-making corporations only paid $1.49 in interest for every $100 sales, whereas, the loss-making corporations paid $3.90 in interest for every $100 sales, an increase of $2.41 which appeared to indicate that many of the latter must have been short of working capital.

The figures for 1928 are much more informative on this point, for the 678 loss-making corporations actually paid over $700,000 more interest than the 1345 profit-making ones. In other words, the profit-making corporations *decreased* the percentage of "interest paid" from 1.49 per cent of gross sales to 1.32 per cent or .17 per cent (nearly two million dollars), whereas the loss-making corporations *increased* their percentage from 3.90 per cent of gross sales to 5.64 per cent, an increase of over $8,500,000.

Losses from Operations Recouped from Other Sources

It is hardly conceivable that all this borrowed money was used in their regular business and an examination of their income from "other sources" shows that their miscellaneous receipts (outside their regular business) increased 4½ millions, their "interest received" 3 millions, and their "dividends received" nearly 4 millions, a total of $11,500,000. Possibly part of this borrowed money was used for purposes not unconnected with the bull market which was flourishing on the Stock Exchange in 1928, but that of course is a surmise difficult to substantiate. We can only point to the fact of the very remarkable increases in their interest paid, and income from other sources, and wonder how long a number of these concerns will consider it worth while to continue operating in the Pulp and Paper Industry, since their income from outside sources in 1928 amounted to $23,500,000, while their losses from operations totalled over $33,000,000. This means that, on an average, each of the 678 loss-making corporations lost $48,672 from operations during 1928, but received in "income from other sources" $34,660, their average net loss thus being reduced to $14,012.

Statement Re-Arranged

We will now show a revised statement for the loss-making corporations, similar to one shown above (Table D) for the profit-making corporations, in which the following items have been added to the original "cost of goods sold" figure.

Item	Amount	% Gross Sales
Depreciation	$16,647,757	5.09
Compensation of Officers	6,603,162	2.02
Taxes	4,201,300	1.28
Bad Debts	1,368,411	.42
Depletion	861,478	.27
	$29,682,108	9.08%

The 1928 figures for the 678 loss-making corporations would then read as follows:—

TABLE G

	1928	
	Amount	% Gross Sales
Gross Sales, less Returns & Allowances	$327,227,347	100.00
Cost of Goods Sold	294,115,122	89.88
GROSS PROFITS FROM SALES	$33,112,225	10.12
Miscellaneous Deductions	$49.954,558	15.27
Interest Paid	18,440,831	5.64
TOTAL DEDUCTIONS	$68,395,389	20.91
NET LOSSES FROM SALES	$35,283,164	10.79

Percentages Compared on Re-Arranged Basis

The following statement shows how these percentages compare with profit-making corporations, set up on same basis (Table D). Col. A represents profit-making corporations, Col B loss-making corporations and Col. C differences between the two for the year 1928, when including depreciation, compensation of officers, taxes, (excluding Federal Income), bad debts, and depletion as part of the cost of goods sold.

TABLE H

	(Col. A) %	(Col. B) %	(Col. C) %
Gross Sales, less Returns & Allowances	100.00	100.00	....
Cost of Goods Sold	79.65	89.88	10.23
GROSS PROFIT FROM SALES	20.35	10.12	—10.23
Miscellaneous Deductions	12.23	15.27	3.04
Interest Paid	1.32	5.64	4.32
TOTAL DEDUCTIONS	13.55	20.91	7.36
NET PROFITS FROM SALES	6.80	....	— 6.80
NET LOSSES FROM SALES	....	10.79	10.79
No. of Corporations Reporting	1,345	678	....
Average Gross Sales Per Corporation	$994,308	$482,636	....

Difference in "Cost of Goods Sold" 10.23 Per Cent

Reference having already been made to the remarkable fact, that the loss-making corporations in 1928 paid out about 5⅔ per cent of their receipts from gross sales for interest, also to the fact that their average gross sales amounted to less than 50 per cent of the average gross sales of each of the profit-making corporations, we will confine our remarks regarding the above statement to the other enumerated items.

The "costs of goods sold" percentage is, of course, the most significant, the increase of 10.23 per cent in this item accounting for all but .56 per cent of the total net losses from sales, which show as 10.79 per cent.

Speaking in round figures, it will be seen that the profit-making corporations made a gross profit of 20 per cent while the loss-making ones only made 10 per cent; that is to say, the former sold their products at an advance of 25 per cent over their cost figure while the latter sold at an advance of only 11:11 per cent.

Losses Mainly Attributable to This Difference

Assuming that both groups sold their products at approximately the same prices, it appears then that the loss-making corporations can attribute their losses to the fact, that they can only manufacture their products at a cost 12½ per cent in excess of the cost at which the profit-making corporations can manufacture the same products.

Had they been able to sell at the same advance over cost, viz, 25 per cent, as the profit-making corporations, they would have made a gross profit of 22½ per cent or a net profit of approximately 1½ per cent out of which they would have had to pay Federal Taxes. To break even on their sales, it would have been necessary for them to sell at an approximate advance over cost of 23½ per cent, as follows:—

Gross Sales (23½% over cost)	$111.15
Cost of Goods Sold	90.00
GROSS PROFITS FROM SALES	21.15
TOTAL DEDUCTIONS	20.91
NET PROFITS FROM SALES	.24

As they sold at an advance over cost of only 11.11 per cent this means that these loss-making corporations must either reduce their costs by 11.11 per cent (that is from 90 per cent to 80 per cent of gross sales), or must more than double the margin at which they are selling over cost, viz, from 11.11 per cent to 23.5 per cent. *If they can do either of these things, they will have the extreme satisfaction of breaking even on the year's business.*

Price Campaigns Ineffectual While Unsound Financial Conditions Exist

In our opinion, it is such facts as those enumerated above, that seem to point to the futility of attempting a general campaign for better prices, except insofar as such a campaign, legally conducted of course, may have the effect of emphasizing the necessity of holding prices at their present levels. In other words, by showing that reasonable profits cannot be made unless prices are advanced, say 10 per cent, we may possibly be successful to the point where sufficient backbone is exhibited to maintain prices at a level sufficient to enable us to pay dividends of 6 per cent, very little more, if any, than could be obtained by investing in first-class secured investments.

Revision Would Be Helpful

Undoubtedly a revision of the Sherman Anti-Trust Act would be helpful, but we do not believe that a general permission to fix prices or the abolition of the acts forbidden by that statute would be very beneficial. Does not the Canadian newsprint situation help to prove that? There is no act similar to the Sherman Act operative in that country, and yet due to conditions similar to those existing in this country, newsprint prices have reached a level productive of little, if any, profit for most of the mills. They are turning to big mergers in an attempt to solve their problems and the Sherman Act does not prevent us from seeking a solution of our problems along the same lines.

That is one way. Another way is, by cooperative work through trade associations, particularly directed toward educating those units (to be specific), which made losses in 1928. We must first change our unsound financial practices before we can hope to make reasonable profits.

Unsuccessful Corporations Did Nearly 20 Per Cent of Business

The tax returns show the following figures for Gross Sales in 1928.

	Gross Sales (1928) $	%
Profit-making corporations	1,337,344,889	80.35
Loss-making corporations	327,227,347	19.65
	1,664,572,236	100.00

One-Fifth of Total Sales

From this, it will be seen that although the corporation business done at a loss in our industry in 1928 was carried on by a *third* of the corporations in *numbers*, it only amounted to approximately one *fifth* of the total *sales*. We are said to have operated at approximately 78 per cent of capacity in that year, and the point is raised as to why, if 80 per cent of the business could be done at a profit under such conditions, the remaining 20 per cent cost the producers $33,000,000. How much did it cost their competitors through price reductions forced on "financially unfit" concerns? A study of the balance sheets of the profit-making and loss-making corporations will clearly reveal under what severe financial handicaps, the latter were operating.

Total Assets Over Two Billion Dollars

We are now a two billion dollar industry from the point of view of the total assets used in our business, as follows:—

	Total Assets	%
1313 Profit-making Corporations	$1,719,836,987	81.30
629 Loss-making Corporations	396,532,698	18.70
1942	$2,116,369,685	100.00

Corpoartions Not Included

It must be noted that the figures for 32 corporations making profits and for 49 corporations making losses, are not included in the above figures nor in any of the following balance sheet figures. We shall however use these figures as if they had been so included by the Bureau, as in all probability if included, their effect upon the final figures would be negligible.

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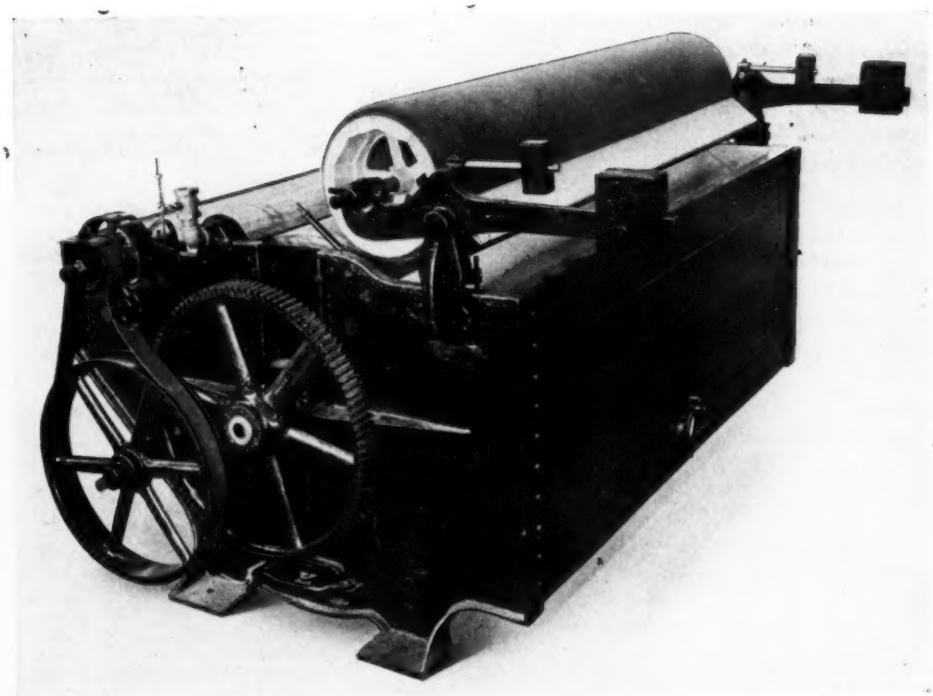
THE COMMON-SENSE WAY TO MAKE A PROFIT ON FIBRE RECOVERY:

The Bird Closed System is a practical, common-sense, profitable system. It fits smoothly into the regular mill routine. It operates with simple equipment that is inexpensive to install and operate. It reduces to a minimum the ultimate loss of stock leaving the mill.

Let us show you how your mill can use the Bird Closed System to increase net profits. Write for the complete story.



BIRD MACHINE COMPANY, SOUTH WALPOLE, MASSACHUSETTS

BIRD CLOSED SYSTEM

4600

TABLE I

STATEMENT OF ASSETS AND LIABILITIES FOR PROFIT-MAKING CORPORATIONS

	Total Assets	%
Cash	$ 82,671,487	4.78
Notes & Accounts Receivable	197,129,564	11.47
Inventories	253,179,960	14.74
Tax-Exempt Investments	52,380,173	3.04
TOTAL CURRENT ASSETS	585,361,184	34.03
Real Estate, Bldgs. & Equip. (Less Deprecn.)	865,855,970	50.35
TOTAL FIXED ASSETS (NET)	865,855,970	50.35
Miscellaneous Assets	268,619,833	15.62
TOTAL ASSETS	$1,719,836,987	100.00
	Total Liabilities	**%**
Notes and Accounts Payable	$ 131,129,047	7.62
Miscellaneous Liabilities	95,001,275	5.53
TOTAL CURRENT LIABILITIES	226,130,322	13.15
Bonded Debt & Mortgages	195,170,650	11.35
TOTAL DUE TO CREDITORS	421,300,972	24.50
CAPITAL STOCK—		
Preferred	221,556,040	12.86
Common	570,249,334	33.18
TOTAL	791,805,374	46.04
Surplus and Undivided Profits	510,261,689	29.63
Deficit	3,531,048	.17
Surplus etc. less Deficit	506,730,641	29.46
TOTAL CAPITAL INVESTED	1,298,536,015	75.50
TOTAL LIABILITIES	$1,719,836,987	100.00

TABLE J

STATEMENT OF ASSETS AND LIABILITIES FOR LOSS-MAKING CORPORATIONS

	Total Assets	%
Cash	$ 8,658,173	2.14
Notes & Accounts Receivable	31,362,654	7.89
Inventories	54,141,936	13.70
Tax Exempt Investments	2,001,403	.51
TOTAL CURRENT ASSETS	$ 96,164,166	24.24
Real Estate Bldgs. & Equip. (less depn.)	245,355,144	61.87
TOTAL FIXED ASSETS (NET)	245,355,144	61.87
Miscellaneous Assets	55,013,388	13.89
TOTAL ASSETS	$396,532,698	100.00
	Total Liabilities	**%**
Notes & Accounts Payable	$ 143,825,793	36.31
Miscellaneous Liabilities	27,276,052	6.86
TOTAL CURRENT LIABILITIES	171,101,845	43.17
Bonded Debt & Mortgages	44,078,282	11.12
TOTAL DUE TO CREDITORS	215,180,127	54.29
CAPITOL STOCK—		
Preferred	25,473,827	6.40
Common	121,915,457	30.72
TOTAL	147,389,284	37.12
Surplus and Undivided Profits	51,480,530	12.88
Deficit	17,517,243	4.29
Surplus less Deficit	33,963,287	8.59
TOTAL CAPITAL INVESTED	181,352,571	45.71
TOTAL LIABILITIES	$396,532,698	100.00

Comparison of Percentages of Assets and Liabilities 1928

Statement of Percentages of Assets and Liabilities to Total Assets and Total Liabilities for Profit-making corporations, (Col. A), Loss-making corporations (Col. B), and differences (Col C).

TABLE K

ASSETS	Col. A. %	Col. B %	Col. C * %
Cash	4.78	2.14	— 2.64
Notes and Accounts Receivable	11.47	7.89	— 3.58
Inventories	14.74	13.70	— 1.04
Tax-exempt Investments	3.04	.51	— 2.53
TOTAL CURRENT ASSETS	34.03	24.24	— 9.79
TOTAL FIXED ASSETS (NET)	50.35	61.87	11.52
Miscellaneous Assets	15.62	13.89	— 1.73
TOTAL ASSETS	100.00	100.00	
LIABILITIES			
Notes and Accounts Payable	7.62	36.31	28.69
Miscellaneous Liabilities	5.53	6.86	1.33
CURRENT LIABILITIES	13.15	43.17	30.02
Bonded Debt and Mortgages	11.35	11.12	— .23
TOTAL DUE TO CREDITORS	24.50	54.29	29.79
CAPITAL STOCK—			
Preferred	12.86	6.40	— 6.46
Common	33.18	30.72	— 2.46
TOTAL	46.04	37.12	— 8.92
Surplus and Undivided Profits	29.63	12.88	—16.75
Deficit	.17	4.29	4.12
Surplus etc. less Deficit	29.46	8.59	—20.87
TOTAL CAPITAL INVESTED	75.50	45.71	—29.79
TOTAL LIABILITIES	100.00	100.00	

* Minus sign denotes Col. B deducted from Col. A.

It will be noted that the "total capital invested" of the profit-making corporations (Col. A) was more than three times the total amount due to all creditors (75.5 per cent to 24.5 per cent). Including "miscellaneous" as current, their total current liabilities amounted to 13.15 per cent, as against total current assets of 34.03 per cent their current ratio thus being 2.58 to 1. Omitting inventories, 14.74 per cent, their liquid cash assets amounted to 19.29 per cent an excess of 6.14 per cent over total current liabilities of 13.15 per cent.

Average Financial Situation of Successful Corporation

The average financial situation of the profit-making corporations may be summed up as follows:—

TABLE L

Total Capital Invested		$75.50
How Utilized—		
Fixed Assets (Net)	$50.35	
Less Bonded Debts & Mortgages	11.35	
Capital Utilized in Fixed Assets		$39.00
Total Current Assets	34.03	
Less Total Current Liabilities	13.15	
Capital Utilized in Current Assets		20.88
Capital Utilized in Miscellaneous Assets		15.62
Total		$75.50

This is equivalent to saying that of every $100.00 of Capital invested not more than two-thirds should be invested in *fixed* assets, on which $15.00 could be borrowed by means of bonds and mortgages, representing nearly 25 per cent of the amount so invested. Nearly half the capital investment would then be available for working capital as can be seen from the following statement. In this statement is shown how the average profit-making corporation utilizes its capital *per $100 of capital invested.*

TABLE M

Total Capital Invested		$100.00
How Utilized—		
Fixed Assets (Net)	66.68	
Less Borrowed on Bonds & Mortgages	15.03	
Capital Utilized in Fixed Assets		51.65
Total Current Assets	45.07	
Less owing to Current Creditors	17.41	
Capital Utilized in Current Assets		27.66
Capital Utilized in Miscellaneous Assets		20.69
		$100.00

That represents the average financial situation of the profit-making corporations. We will now similarly examine the average financial situation of the loss-making corporations, as shown by Col. B in Table K above.

Average Financial Situation of Unsuccessful Corporation

The "total capital invested" of the loss-making corporations amounted to only 45.71 per cent of their total assets as against 75.5 per cent in the case of the profit-making corporations. *Thus, they only have 2.54 per cent more invested in the business than their current creditors,* that, be it understood, being the *average* situation.

Adding the amount borrowed on Bonds and Mortgages we find that the total amount due to creditors is 54.29 per cent of the total

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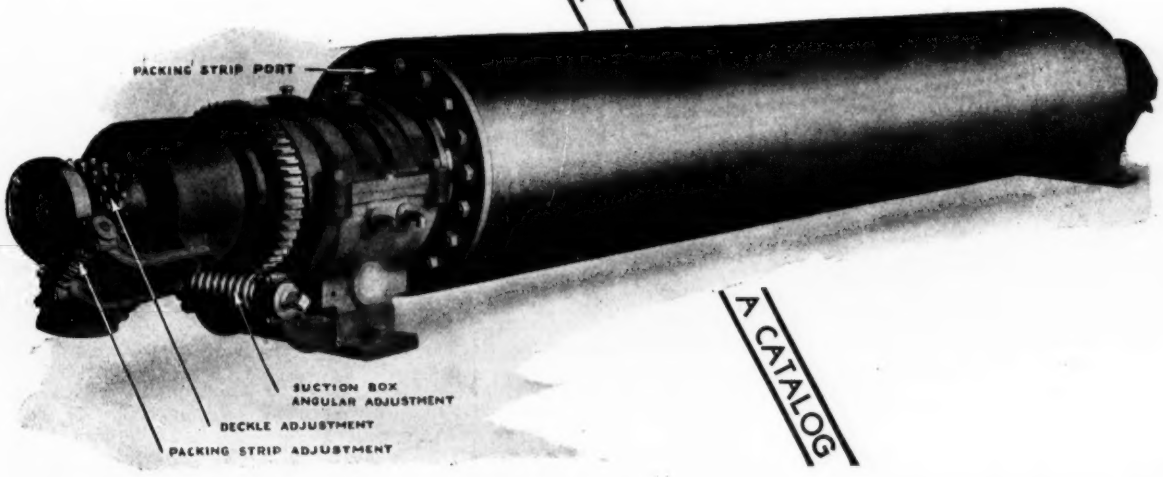


assets or *8.58 per cent more than the 45.71 per cent due to the shareholders, surely a very severe handicap under which to carry on business and one not conducive to getting fair prices in a buyers' market.*

The average financial situation of the loss-making corporations may be summed up as follows:—

TABLE N

Fixed Assets (Net)	$61.87	
Less Bonded Debts & Mortgages	11.12	
	50.75	
Less Total Capital Invested	45.71	
Current Creditors' advances tied up in Fixed Assets.		$5.04
Current Creditors' advances in Miscellaneous Assets...		13.89
Current Creditors' advances in Current Assets.....		24.24
TOTAL CURRENT LIABILITIES		$43.17

It is difficult to understand how business can be conducted under such circumstances, but easy to understand the urgency of the selling at any price to get the necessary funds to keep the creditors quiet and the receiver outside the door.

The following table may help to make the situation clearer by showing the set-up *per $100 of capital invested* in the average loss-making corporation.

TABLE O

Fixed Assets (Net)	$135.35	
Less Bonded Debts, & Mortgages	24.33	
	111.02	
Less Capital Invested	100.00	
Current Creditors' Advances tied up in Fixed Assets..		$11.02
Current Creditors' Advances in Miscellaneous Assets		30.39
Current Creditors' Advances in Current Assets		53.03
TOTAL CURRENT LIABILITIES		$94.44

Thus for every $100 of invested capital there are outstanding *current* liabilities of $94.44 and in addition fixed liabilities of $24.33, making a total of $118.77.

Lack of Capital Cause of Price-Cutting

These percentages clearly illustrate the truth of what we have stressed for several years, viz, that the most important factor causing price-cutting in our industry, is the constant need for cash by under-capitalized concerns. It can easily be understood, (and the large item of "interest paid," mentioned previously bears out this statement), that operating under such conditions, most of the chief executive's time and energy in these concerns, is spent in an endeavor to meet his constantly pressing financial obligations. What is the use of asking a man to stiffen his backbone and hold out for a price that will give him a reasonable profit, when he knows he must have $5000 within a week, to meet a note that his bank has refused to renew or to pay for pulp so that he can get another supply? His backbone is being used to carry a load, which makes compliance with the suggestion impossible. No matter how much he may desire to obtain better prices, *he must have cash, so must sell his products and must meet all competition, irrespective of prices and costs and everything else.*

The demand for funds is paramount, for are not his bankers and other current creditors financing him to the extent of all his cash, receivables, inventories and even 5 per cent of his plant? According to the Federal Tax Returns, it was under such conditions that approximately one-third of the corporations manufacturing and converting pulp and paper products, carried on business in 1928, and they succeeded in doing 20 per cent of the business. *They did it at a loss of $33,000,000 to themselves and, in our opinion, through being forced to cut prices, at a loss of many more millions to their competitors.*

The most remarkable fact is, that such conditions can continue and that any corporation, whose current liabilities are one and three-quarter times greater than its current assets, can still carry on. It's true we are discussing the average condition in over 600 concerns, but if some are better, some must be even worse.

Suggest Survey, Reorganization or Liquidation

We therefore, make the constructive suggestion, that each corporation which made losses in 1928 should compile percentages from their balance sheets at the close of 1930, and compare these percentages with their showing at the close of 1928. We have had a good and bad year since then, and if their financial situation does not show a decided improvement as a result of their two years effort, we suggest they should seriously consider whether the game is worth the candle, and either reorganize on a sound financial basis or liquidate their business.

Their position should also be considered from an economic viewpoint. Pulp and Paper products are not luxuries, they are economic necessities without which business and civilized communities could not exist, and the higher the civilization, the greater the per capita consumption of our products. Even in the worst business depressions, it is doubtful whether the demand for our products decreases more than 25 per cent. For instance, according to the statistics compiled by the American Paper and Pulp Association, our total production decreased from 7,334,000 tons in 1920 to 5,431,000 tons in 1921, a decrease of approximately 25 per cent. Every year since then has shown a substantial increase until in 1929 our estimated total production had increased to 10,984,000 tons. Loss-making corporations cannot, therefore, blame lack of demand for their losses.

How many other old established industries can show a similar rate of progress? How many other industries only show a fluctuation of 25 per cent in the worst kind of a depression, such as we experienced in 1921? It is a well-known fact, that many of them lose as much as 50 per cent and 60 per cent of their business in such a year. Therefore, difficulties of operation, due to large fluctuations in demand, are not so serious in our industry as in many others.

We are thus in a preferred position due to the fact, that our products are essential and the demand for them is constantly increasing. What is more important from a profit standpoint is, that 80 per cent of our tonnage is operating on a sound financial basis. *Our problem is to educate the other 20 per cent to operate on a similar basis or cease to operate.*

Recommendation Accords with Federal Trade Commission Report

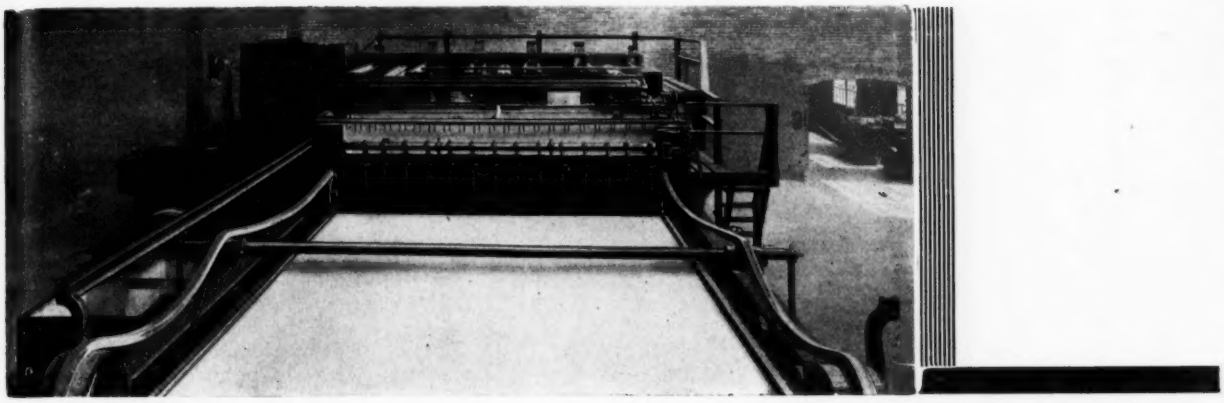
Although we are making this suggestion as much in their interest, as in that of their more efficient competitors, we also wish to point out that this suggestion is quite in order as coming from a trade association engaged in promoting better accounting and cost procedure among its members. In fact, we should be failing in our duty to our members, if we neglected to do this, as can be seen from the following quotation from a report on cost work in trade associations sent to the Senate by the Federal Trade Commission, in which the Commission said:—

"So far as greater uniformity or a narrower range of prices," "resulting merely from better cost work means a reduction in the" "proportion of concerns doing business at a loss, it is economically" "desirable. This proposition, however, does not mean *that all the" "concerns at present in the industry should be kept going by raising" "prices*—an assumption, which is too common. Better cost account-" "ing and cost information should tend to eliminate the practice of" "selling too low, *in part by causing some in the industry to raise" "their prices, but also in part by causing some in the industry to" "decide to go out of business. If the first but not the second process" "is operative, there is occasion for suspicion of the use made of" "the cost-accounting data."*

We know that our work has been beneficial in tending to eliminate the practice of selling below cost, but we have never heard of any concerns deciding to discontinue business as a result of it. In the words of the Commission, "to avoid suspicion," we now suggest that those corporations, whose capital structure has been seriously impaired, "decide to go out of business" or put their financial houses in order.

Good Business Management Demands Adequate Financial

This would appear to be the heart of our problem viz, the education of 33 per cent of our corporations to a proper under-



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standing of the principles underlying good business management for they cannot continue to operate with a capital investment of less than 50 per cent of their total assets and current liabilities of $178 for every $100 of current assets.

A thorough survey should be made to ascertain whether anything can be done to the plant or the organization whereby its operations can be placed on a profitable basis. It's not much good cursing prices. Both successful and unsuccessful corporations sold in the same markets. The fault lies not with the prices but with the management that makes the prices and to go further back to the bad financial conditions that often forces management to cut prices already too low.

In this connection we again emphasize the fact that the average gross sales of the profit-making corporation amounted to $994,308, while the average for the loss-making ones was less than half this amount, viz, $482,636. For 1927 the figures were approximately $968,143 and $396,316 respectively. It is therefore apparent, that in both years, it was the smaller corporations that formed the bulk of the loss-making group.

Sales Ratios

Speaking generally, it would appear that the average profit-making corporation sells $1,000,000 of pulp or paper products during a year at a price more than 25 per cent in excess of its "cost of goods sold," and "cost of goods sold" includes all costs and expenses (on this figuring), exclusive of miscellaneous deductions, (see Federal tax forms) interest paid and Federal Income taxes.

To do this business of $1,000,000, this average profit-making corporation used (1928) total assets worth $1,280,000; its invested capital was $970,000 and its fixed assets (net) $650,000. In other words, stating it in percentages of $100 gross sales (less returns and allowances), the ratios were approximately as follows:—

Sales to Total Assets	100	:	128
Sales to Invested Capital	100	:	97
Sales to Fixed Assets	100	:	65

Similar ratios for the average loss-making corporation were as follows:—

Sales to Total Assets	100	:	121
Sales to Invested Capital	100	:	55
Sales to Fixed Assets	100	:	75

These ratios bring out clearly several significant facts. First, that both profit-making and loss-making corporations require approximately the same amount of total assets per $100 sales. This has a bearing on the second ratio, which shows that in spite of this fact the loss-making corporations, only have $55 of invested capital against $97, per $100 sales. They have however, $10 more invested in fixed assets per $100 sales, than the profit-making corporations who do $100 business for each $65 invested in fixed assets.

These ratios, therefore, are further evidence of the financial pressure under which executives in the loss-making corporations are operating.

Financial Guideposts

We therefore suggest the following ratios should be used by management at the close of 1930, as being conservative checks on their financial status and annual business.

1—Current Assets to Current Liabilities	250	:	100
2—Capital Invested to Fixed Assets (net)	150	:	100
3—Capital Invested to Total Liabilities	300	:	100
4—Total Annual Gross Sales (less returns and allowances) to:—			
A—Total Assets	80	:	100
B—Invested Capital	100	:	100
C—Fixed Assets	150	:	100

Although 1930 has not been a "good business" year, it is a fact that some corporations in our industry have made good profits, while too many others have suffered financial reverses. It is essential therefore, that executives shall have some formulas to use in maintaining financial equilibrium. This is made more necessary by the fact that this is a period of declining prices. In commenting on this fact, that well-known economist, Colonel Leonard P. Ayres says:—

"In a long period of falling prices any regular payment of a fixed sum, like the annual installment on a mortgage, is harder to make each year than it was the year before. The rent is harder to pay and the taxes more difficult to meet. If one is a farmer and pays $200 a year on a mortgage, it takes only 100 bushels of wheat to meet the payment when the price is $2.00 a bushel, but it takes 200 bushels when the price drops to $1.00. If one is a manufacturer and buys raw material to make into a finished product, the value of the material shrinks, while being made up and one must sell at less than one expected or take a smaller profit than one had intended. The rent and taxes, etc., of the factory are in reality paid in units of the articles manufactured and each year it takes more and more of these articles to pay them."

This emphasizes the necessity for the use of financial yardsticks. Today, good management demands the maintenance of financial equilibrium. Badly balanced craft are quickly upset in the tempestuous competitive seas or so badly damaged they become derelicts and until sunk, a menace to those craft which are properly prepared for all other risks.

We have dealt with "averages" in bringing out these facts. We shall now illustrate the wide variations which exist in the industry, and the large number of "badly balanced craft," by showing the distribution of the net income.

Distribution of Net Income of Profit-Making Corporations

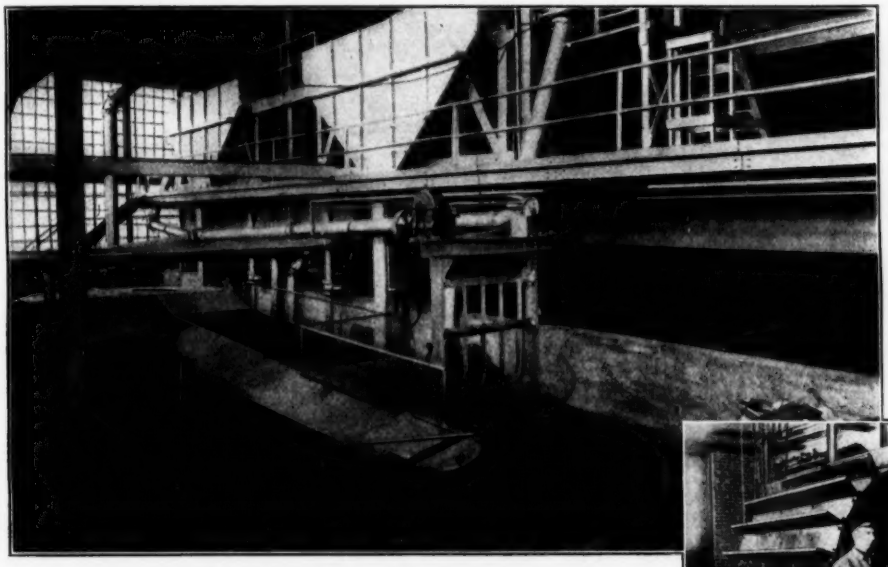
458 or 34.05 of the number of *profit-making corporations* in 1928 had 95 per cent of the net income leaving 887 or 65.95 per cent to divide the remaining 5 per cent. The following statement shows the distribution of number of Federal tax returns by size of Net Income (Col. A) per cent of total number of returns in each class (Col. B) Total Net Income in thousands of dollars (Col. C), per cent of Total Net income in each class (Col. D) and the cumulative distribution under class above of the total number of returns (Col. E), also of total net income (Col. F).

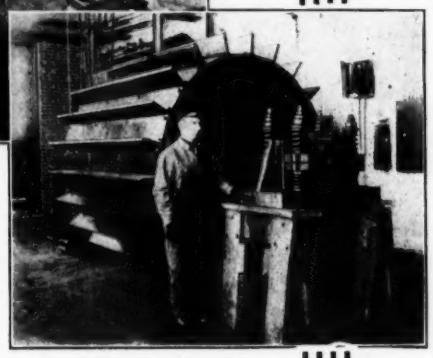
TABLE P

DISTRIBUTION OF NUMBER OF FEDERAL TAX RETURNS (1928) BY SIZE OF NET INCOME

SIZE OF NET INCOME	No. of Returns	% Total No. of Returns	Total Net Income 000 omitted	% Total Net Income	Cumulative Distribution Under Class Above	
	No.	%	$	%	% Returns	% Income
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F
Under $1000	147	10.93	66	.06	10.93	.06
$ 1000 under $ 2000	125	9.29	180	.15	20.22	.06
2000 under 3000	120	8.92	303	.26	29.14	.47
3000 under 4000	67	4.98	230	.19	34.12	.66
4000 under 5000	46	3.42	204	.17	37.54	.83
5000 under 10000	151	11.23	1086	.92	48.77	1.75
10000 under 15000	105	7.81	1312	1.11	56.58	2.86
15000 under 20000	58	4.31	1009	.85	60.89	3.71
20000 under 25000	68	5.06	1537	1.29	65.95	5.00
25000 under 50000	134	9.96	4921	4.15	75.91	9.15
50000 under 100000	119	8.85	8426	7.11	84.76	16.26
100000 under 250000	101	7.51	16520	13.93	92.27	30.10
250000 under 500000	52	3.87	18843	15.89	96.14	46.08
500000 under 1000000	31	2.30	22782	19.21	98.44	65.29
1000000 under 5000000	21	1.56	41165	34.71	100.00	100.00
5000000 and over						
	1345	100.00	$118584	100.00		

The table shows clearly that the bulk of the profit-making corporations are not making adequate profits for although the majority in the smaller classes may or may not be smaller corporations, the distribution is so markedly out of proportion that we are forced to the conclusion that many of the units in these classes are not making sufficient profits even to equal the average of only 7 per cent for the profit-making group of corporations.





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Distribution of Deficits of Loss-Making Corporations

Table Q shows the distribution of the number of Federal Tax Returns by size of deficits (Col. A), percent of Total No. of Returns in each Class (Col. B), Total Deficit in thousands of dollars (Col. C), per cent of Total Deficit in each class (Col. D), and the cumulative distribution under class above of the total number of returns (Col. E), also of Total Deficit (Col. F).

TABLE Q

DISTRIBUTION OF NO. OF FEDERAL TAX RETURNS (1928) BY SIZE OF DEFICITS

SIZE OF DEFICIT	No. of Returns	% Total No. of Returns	Total Deficit (000 omitted)	% Total Deficit	Cumulative Distribution Under Class Above	
					Returns	Income
	No.	%	$	%	%	%
Under $1000	123	18.14	64	.43	18.14	.43
$ 1000 under $ 2000	74	10.91	110	.73	29.05	1.16
2000 under 3000	53	7.81	130	.87	36.86	2.03
3000 under 4000	36	5.31	125	.84	42.17	2.87
4000 under 5000	42	6.20	199	1.33	48.37	4.20
5000 under 10000	116	17.11	841	5.62	65.48	9.82
10000 under 15000	67	9.88	818	5.47	75.36	15.29
15000 under 20000	31	4.57	529	3.54	79.93	18.83
20000 under 25000	23	3.39	522	3.49	83.32	22.32
25000 under 50000	59	8.70	2219	14.84	92.02	37.16
50000 under 100000	27	3.98	1976	13.22	96.00	50.38
100000 under 250000	22	3.25	3200	21.40	99.25	71.78
250000 under 500000	2	.30	726	4.86	99.55	76.64
500000 under 1000000	2	.30	3493*	23.36	99.85	100.00
1000000 under 5000000	1	.15	....	....	100.00	....
	678	100.00	14952	100.00		

* Classes grouped to conceal identity of taxpayers.

Summary of Income and Deficits by Classes

To summarize the situation, it appears that 1331 corporations, that is 65.81 per cent of the total active ones reporting in a good business year (1928) either had a net income of less than $25,000 or a deficit less than $10,000. We have divided them into four classes as follows:—

TABLE R

	Corporations		Income (000 omitted)	Deficit (000 omitted)	% Income or deficit
	No.	%			
Class 1—Good	458	22.63	112567	.....	95.00
Class 2—Poor	887	43.84	5927	.....	5.00
Class 3—Bad	444	21.97	.....	1469	9.82
Class 4—Rotten	234	11.56	.....	13483	90.08
Totals	2023	100.00	118494	14952	....

The "Income" and "Deficit" shown represent *Net Income* and *Net Deficit* after addition or deduction respectively of Income from other sources, so do not show actual results of operations. They are however, quite reliable for the purpose of showing the wide variations in the final results even though we do not know the capitalization of the corporations in each class.

We do know however, that the average capital investment of the profit-making corporations was $998,984, and the average income about $88,000 and that the average capital investment of the loss-making corporations (with their low ratio to total assets) was only $288,318, while their average deficit was about $22,000. Table P shows there were over 52 concerns with a net income over $500,000 each in 1928. Their capital must have been several times the average. Table Q shows 27 concerns lost over $100,000 each, which shows their capital must have been higher than the average for their group.

Nevertheless there can be no doubt that differences in capitalization cannot account for the wide variations shown in Table R, with 22.63 per cent of the corporations having 95 per cent of the total net income and 11.56 per cent, accounting for 90 per cent of the total deficit and in between nearly two-thirds (65.80 per cent), that made less than $25,000 or lost less than $10,000, a big twilight zone, generally speaking of poor accomplishment.

The need for better management is obvious, particularly, of course in those concerns that lost over $10,000 (Class 4). It is these concerns we hope, whose executives will be willing to adopt our suggestion to check, (if necessary double-check) their financial positions with standards given above and make their decisions accordingly.

Incomes and Deficits by States

In an endeavor to give some indication as to which states might be particularly interested in checking up on their "financially unfit" corporations, the following Table S has been prepared showing the Gross Income of the profit-making and loss-making corporations by states. The statement also shows the percentage of "net income" to gross income for profit-making corporations and percentage of "deficit" to gross income for loss-making corporations. The last column on right also shows *the percentage that the gross income of the loss-making corporations bears to the total State gross income of all corporations.* It should be noted that "inactive" corporations make up the difference shown in most states between the total number of returns filed (first column) and total of returns filed for profit-making as well as loss-making corporations (second and fifth columns).

TABLE S

Name of State	Total No. of Returns	Profit-Making Corporation: No. of Returns	Profit-Making Corporation: Gross Income (000 Omitted)	Profit-Making Corporation: Net Income to Gross	Loss-Making Corporations: No. of Returns	Loss-Making Corporations: Gross Income (000 omitted)	Loss-Making Corporations: Deficit to Gross	% Gross Income to Total State Gross Income
			$	%		$	%	%
California	57	36	90,006	10.62	17	3,363	9.37	3.60
Connecticut	62	41	17,553	10.53	19	1,163	18.91	6.21
Delaware	10	6	5,232	7.26	4	1,212	2.14	18.81
Illinois	166	117	86,526	8.18	47	16,274	4.98	15.83
Indiana	52	31	24,862	11.98	19	3,706	7.23	12.97
Iowa	15	11	2,091	4.83	3	321	2.49	13.30
Louisiana	11	7	4,423	13.07	3	1,305	5.38	22.78
Maine	21	12	66,701	8.05	9	6,986	4.78	9.48
Maryland	28	20	4,563	4.60	8	1,770	3.05	27.94
Massachusetts	210	123	188,636	9.70	83	165,198	1.52	46.68
Michigan	70	54	107,236	6.60	16	6,524	6.68	5.73
Minnesota	36	28	40,501	4.05	8	740	6.48	1.79
Missouri	59	42	16,423	4.81	17	2,710	5.20	14.16
New Hamp.	20	12	8,509	12.71	8	1,602	2.00	15.84
New Jersey	108	60	34,643	7.70	46	15,782	5.53	31.30
New York	575	332	271,724	8.52	224	83,119	6.60	23.42
No. Carolina	4	4	1,143	7.35	....	....	....	....
Ohio	135	97	132,434	8.21	32	4,416	8.40	3.22
Oregon	17	7	5,625	11.30	4	4,156	2.06	42.49
Penna.	175	120	78,185	7.79	48	10,369	8.01	11.70
Rhode Island	19	14	4,414	7.27	5	879	3.86	16.60
Tennessee	14	9	4,110	5.15	4	2,789	1.47	40.42
Texas	13	8	2,953	7.11	5	1,105	26.33	27.23
Vermont	14	8	5,986	7.06	5	2,369	27.73	28.35
Virginia	20	16	15,605	7.53	4	1,749	1.03	10.07
Washington	24	13	8,478	17.95	6	1,380	14.92	14.00
Wisconsin	98	76	128,578	9.81	18	8,327	7.98	6.08

Points Worth Noting

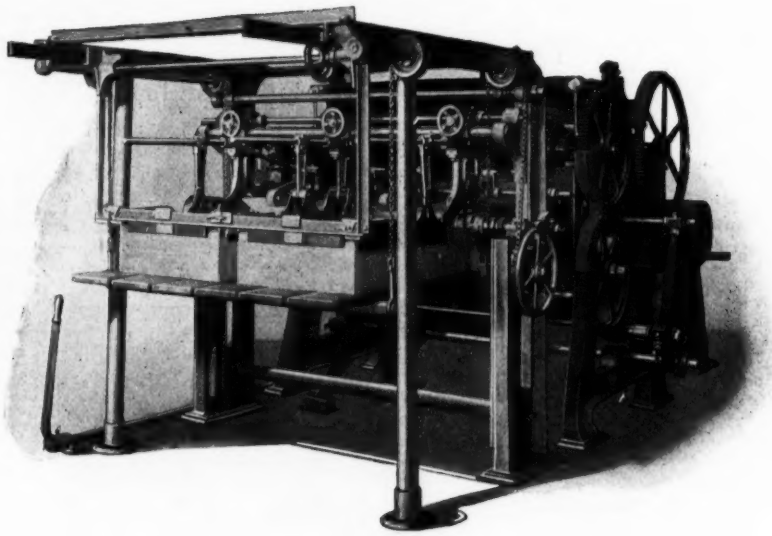
The states, whose *successful* corporations had the biggest percentage of *net income* to gross income, it will be seen, were:—

1—Washington	17.95%
2—Louisiana	13.07%
3—New Hampshire	12.71%
4—Indiana	11.98%
5—Oregon	11.30%
6—California	10.62%
7—Connecticut	10.53%
8—Wisconsin	9.81%
9—Massachusetts	9.70%
10—New York	8.52%

The states, whose *unsuccessful* corporations had the biggest per centage of *deficit* to gross income were:—

1—Vermont	27.73%
2—Texas	26.33%
3—Connecticut	18.91%
4—Washington	14.92%
5—California	9.37%
6—Ohio	8.40%
7—Pennsylvania	8.01%
8—Wisconsin	7.98%
9—Indiana	7.23%
10—Michigan	6.68%

Washington, Indiana, California, Connecticut and Wisconsin appear on both lists, that is to say, 50 per cent of each list is composed of same states, which is indicative of wide variations.



72-in. single Moore & White Lay Boy and Cutter.

Enlarging a "Bottle Neck"

WHERE sheets from a paper cutter are piled by hand, the limiting factors in the machine's output are the dexterity of the girl at the laying table, and the time that cutter is actually operated. Not only does the girl slow down the cutter when paper is running badly; but when she is tired the sheets are badly laid and sometimes must be scrapped. Also, it is necessary to shut down the unit periodically to remove paper from the pile, which when hand laid is only 9 inches high.

By putting Moore & White Lay Boys to work on your cutters, not only will you save a large part of the wages paid for a purely mechanical operation, but you will enhance the returns from your investment in the cutters.

Spoilage will be less.

Cutters can be operated more continuously, thus increasing total production.

Paper is piled to 36 inches high on standard Lay Boy. Higher piles can be laid if desired.

The tables are automatically lowered. When full, the piles are taken away by trucks, and fresh tables are put in their place.

Standard machines are built for sheet lengths up to 72 inches—longer if desired. Any width—any make of cutter.

Full data on request.

THE MOORE & WHITE COMPANY
Established 1885
PAPER MACHINE BUILDERS
15TH ST. & LEHIGH AVE. PHILADELPHIA, PA.

M&W CUTTERS *and* LAY BOYS

The states, in which the *successful* corporations did a *high* percentage of the total state business were as follows:—

1—North Carolina	100.00%
2—Minnesota	98.21%
3—Ohio	96.78%
4—California	96.40%
5—Michigan	94.27%
6—Wisconsin	93.92%
7—Connecticut	93.79%
8—Maine	90.52%
9—Virginia	89.93%
10—Pennsylvania	88.30%

The states, in which the *unsuccessful* corporations did a high percentage of the total State business, were as follows:—

1—Massachusetts	46.68%
2—Oregon	42.49%
3—Tennessee	40.42%
4—New Jersey	31.30%
5—Vermont	28.35%
6—Maryland	27.94%
7—Texas	27.23%
8—New York	23.42%
9—Louisiana	22.78%
10—Delaware	18.81%

It would appear that the geographical situation appears to have no bearing on the business of making losses, as an Eastern and Western State head this list. In both cases, however, it will be seen that the average percentage of deficit to gross income was very low, being 1.52 per cent and 2.06 per cent respectively for Massachusetts and Oregon.

Conclusion

It has been said that "Financial management is now the most important phase of management," also that an executive is a man, "who can not only produce profits but can produce the maximum amount of profit on a certain amount of invested capital." This is becoming increasingly difficult even for the most capable executive, under the most favorable internal conditions, on account of the bad external conditions existing in the Pulp and Paper Industry.

Thus it is essential that executives should work under the most favorable internal conditions and one of the most important factors contributing to such conditions is adequate working capital. A corporation in this industry that has total liabilities in excess of 50 per cent of its invested capital is under capitalized and its executive is working under a double handicap. His sales policies must be shaped according to his need for funds. He cannot wait even a short period for a more favorable selling opportunity. *He must sell* and urgent selling is disastrous to prices. We believe a better appreciation of these facts will be beneficial to the Pulp and Paper Industry.

In conclusion, we shall quote from an article "Have you the Right to be in Business," in which Professor W. O. Douglas of the Yale Law School, who has made a study of bankruptcies, listed six outstanding causes through which the individual man is most likely to slip and land in bankruptcy as follows:—

1—Failure to keep proper books of account.

2—Negligence in applying bookkeeping facts.

3—Diverting funds from the business for speculation or for extravagant living.

4—Giving too much credit.

5—Accepting too much credit.

6—Errors in judgment.

These causes can be avoided by setting up financial guide-posts. We have designated some of these guide-posts and hope that an increasing number of unsuccessful corporations will see fit to use them. If they do, they should make successful progress in their enterprises, which should mean the return of "prosperity" to our industry.

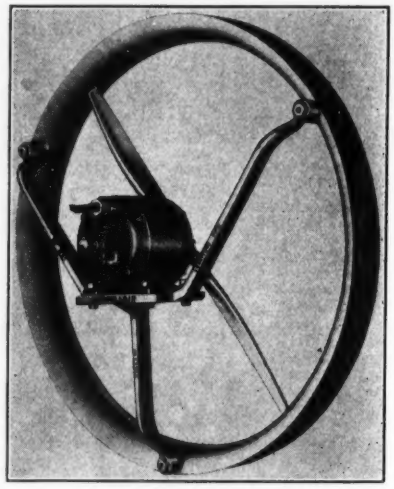
Finnish Paper Exports

The Finnish Paper Manufacturers' Association report an export of 143,176 metric tons of paper during 1930 as against 142,255 tons during 1929. In addition 39,185 tons were exported by the Finnish Paper Office and 83,148 tons by Kymmene O/Y as against 33,655 tons and 69,445 tons respectively during the preceding year.

New Industrial Ventilating Fan

Propellair, Inc., a newly organized company, of 17 South High street, Columbus, Ohio, is manufacturing and distributing a brand new industrial ventilating fan—trade-marked "Propellair." Professor A. I. Brown, of the Ohio State University Mechanical Engineering Laboratory, is the designer of "Propellair." His curved entrance housing is an innovation. This unique construction co-acts with a propeller of proper design to increase the fan capacity and efficiency to a surprising degree. It enables the full length of the propeller to be efficient without rstricting the area of the fan outlet.

Data and tests compiled in the laboratories at Ohio State



New Ventilating Fan

University and New York University prove irrefutably that "Propellair" is a fan of extraordinary high efficiency. An efficient propeller fan means not only a blade of proper design, but a housing of ring which will properly guide the air currents and offer least resistance to their flow. Such is the revolutionary design of Propellair."

Demand Broadens in Indianapolis

Indianapolis, Ind., February 9, 1931—While little change is seen in the local paper market, there is a trifle broader demand, the broadening including most of the items listed, both fine and coarse papers. Stocks are not too heavy in the local territory. The paper leaders here are not looking for a big resumption in business during the first half of this year and likely not during the last half. They do expect, however, to best the volume of 1930 and it is likely if they do 75 per cent of the 1929 volume most of them will be satisfied.

With spring coming on, the trade believes demand for fine papers will improve. The last six weeks has seen no unusual activity among these lines, but with the stores starting their actual spring sales and a lot of direct mail advertising it is expected this demand will improve.

Demand for wrapping papers also is showing a little more activity. This is particularly noticeable in the rural districts which have been very quiet since Christmas.

Some dealers are making inquiries regarding building papers, but orders are a little slow in spite of uniformly good weather for construction during the entire winter. Stocks of these lines are very low, the dealers having bought carefully last year and having little stock to carry over inventory. Reports from the annual conventions of the building material dealers and lumbermen here indicate that they expect more business this year than last, but they will hold their paper stocks, in common with all other stocks, to a low level during the year.

TECHNICAL BOOKS

for

The PAPER *and* PULP INDUSTRIES

CHEMISTRY *of the* SULPHITE PROCESS

by R. N. Miller and W. H. Swanson

M. W. Bray, R. Soderquist, T. M. Andrews,

W. H. Mansson

The papers which constitute this book appeared originally in the trade and technological journals as current reports of the progress of investigations under way at the United States Forest Products Laboratory for a period of about six years beginning with 1921. This information is the accumulation of years of experience. The method by which sulphite with the desired properties is to be made, the conditions under which it must be cooked, the strength of acid to be used, the equipment, operation and materials are all fully covered in this book. Included in this volume also is "Sulphite Pulp from Spruce" by Donald E. Cable.

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by Clarence J. West

In this edition, the literature has not only been brought up to date, but many additions have been made to the earlier work.

The paper making materials have been listed in dictionary style under the common and botanical names, the references being given only under the latter.

Books and articles are listed under the author (or title) in the dictionary arrangement, and to refer under each material, to the author, and the year of publication.

This list includes all the woods tested at the Forest Products Laboratory, as well as many tested by the Imperial Institute of Great Britain and by other workers.

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Method of procedure for adoption of official paper testing methods by the Technical Association of the Pulp and Paper Industry. The work on standardization of paper testing methods is divided as follows: Microscopic, Physical, Chemical, Optical Tests for Special Uses of Paper.

A number of new proposed methods and testing instruments are described, and much of the text has been rewritten wherever found necessary as a result of developments since the previous edition.

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COMING EVENTS

American Paper and Pulp Association, fifty-fourth Convention and Meeting. Pennsylvania Hotel, February 16-19. Annual Meeting, Thursday, February 19. Annual Banquet, Grand Ball Room, Thursday, February 19.

National Paper Trade Association of the United States. Convention. Pennsylvania Hotel, February 16-18. Luncheon, Wednesday, February 18.

Technical Association of the Pulp and Paper Industry. Convention. Pennsylvania Hotel, February 17-19. Luncheon, Thursday, February 19.

Salesmen's Association of the Paper Industry. Annual Meeting Pennsylvania Hotel, Tuesday, February 17. Luncheon, Tuesday, February 17.

New York Association of Dealers in Paper Mills' Supplies, Annual Banquet. Hotel Commodore, Tuesday, February 17.

RUSSIAN PULPWOOD IN CANADA

The importation of Russian pulpwood into the United States continues to be a lively topic of conversation in the lumbering districts of the Province of Quebec, and has furnished the subject of more than one debate in the Legislative Assembly, now in session. The latest development is the charge that the buying of Russian pulpwood for American mills is the direct result of the agitation carried on in Canada for an embargo on the export of all pulpwood. At present conditions are attached to all permits for the cutting of pulpwood on Crown lands whereby no pulpwood from these lands can be exported in a raw state, but owners of freehold pulpwood limits and farmers are allowed to sell for export. The agitation for putting an embargo on their pulpwood also had not had any effect, nor is it likely to do so, as this would alienate the voters in rural districts. Nevertheless the mere threat, it is said, has played into Russia's hands.

For instance, J. A. Frigon, the Liberal member for the St. Maurice district, protested against the charge that American capital was being used to destroy Canadian forests, saying he had studied the situation at first hand and knew that such a charge was nonsense.

"Last year it was charged that because we had shipped wood to the United States we had prevented many of our workmen from getting employment in our mills, and the outcry was great," he continued. "We were told that our wood going to the United States and being manufactured there deprives thousands of our workmen of employment. What is the result? The result is that American manufacturers, in face of these continued complaints made here, in this very Parliament, to the effect that we should not let wood go to them, have brought wood from Russia to the extent of over 250,000 cords, and they are preparing this year to double the amount of importation. That is the result of the policies which the Opposition has been preaching here."

It was very well to talk against American capital, but what of the growth of the St. Maurice valley, and what of the market created for the farmers? Mr. Frigon said that only recently some farmers who had left good land to get high wages at Shawinigan Falls had gone back to their farms because of the good markets created by industries founded by American capital, and were contented. He said that only recently J. E. Aldred, president of the Shawinigan Water and Power Company, had been in Shawinigan Falls to install an addition to the technical school there, where French-Canadian and English-Canadian boys learned to respect and like each other, and had turned the addition over to the town.

He concluded by protesting against the effort to make political capital out of denunciation of American influence and enterprise, and by saying that it would be better for all if they recognized the substantial contributions which were being made by outside capital and enterprise to the development of the Province.

DEVELOPMENTS IN INDUSTRY

Dr. Joseph H. Willits, Professor of Industry and Director of the Department of Industrial Research at the Wharton School, University of Pennsylvania, at a recent meeting of the American Management Association in Niagara Falls selected the following among the points mentioned by him, as the most significant development in the field of personnel management in the last ten years:—

1. Personnel administration has ceased to be the "morganatic" wife or a "by-blow" of business management and has been built into the structure as an integral part of operating business management.

2. Personnel management and personnel managers have tended to become much less evangelical and sentimental and more ready to seek for and base their ideas and policies upon facts. Personnel management is in process of becoming a more scientific thing.

3. An increased sensitiveness to the kind of job management has been doing has been developing and with this a tremendous effort through training to improve the quality of management. This has been particularly true on the side of training executives in personnel.

4. The psychology of American industry on the subject of wages has been changing. The attitude which seeks to make wages as high as possible rather than as low as possible is one of the most promising ideas so-called capitalistic society has produced.

5. The growth of employee stock ownership is of great importance.

6. The development of employee representation and union management collaboration means that we are starting the development of machinery which can make the ideas and policies of management come closer to the ideas and policies and feelings of the rank and file of workers.

On the basis of these changes Dr. Willits predicted that the

most significant developments in industry in the next ten years would include:

1. An increasing sense of social responsibility by industry,—and perhaps alongside of that,—an increasing participation by the state in the maintenance and establishment of minimum standards in industry.

2. The attainment of a greater measure of security from the hazards of industry and most particularly from the hazards of old age and unemployment.

3. A shorter working week.

4. An increasing concentration upon the quality and upon the methods of improving the quality of executive management and leadership in business.

5. An increase in research in economic and particularly industrial relations problems.

6. A change in the emphasis within industrial psychology by which greater attention will be devoted more directly to an understanding of human behavior in industry through the study of the emotions.

Hampshire To Advertise Aggressively

An announcement of much interest has just been received from the Hampshire Paper Company, South Hadley Falls, Mass., regarding its advertising plans for 1931. This announcement will undoubtedly be welcomed by all the distributors carrying Hampshire papers, as well as their customers, the printers, lithographers and engravers, since this advertising should result in increased sales for everyone concerned.

The usual national magazine, trade paper and direct-by-mail advertising on Old Hampshire Bond, which has been widely and consistently advertised for over thirty years, will be carried out during 1931. In addition to the Old Hampshire Bond advertising, the Hampshire Paper Company will also launch an aggressive direct-by-mail campaign on all their lines of bond and cover papers.

The grades to be so advertised are Titan Bond, Itasca Bond, Anglo Saxon Bond, Old South Bond, Dartford Bond, Salisbury Cover and Text, Wilton Cover and Text, Whitehall Cover and Text, and Malvern Text papers. All of these lines have a national distribution and are not only recognized as being distinctive and exceptionally good papers, but are of unusual value as well.

One of the interesting features of the Hampshire Paper Company lies in the fact that every skilled worker in its employ, and every machine, is a specialist in the making of Bond and Cover and Text papers. Perhaps this helps to explain why Hampshire papers have the reputation of being "Made a Little Better Than Seems Necessary." Their belief is that the business stationery and mailing pieces of a business house should carry the personality and character of that house, and that they must make sales create good-will and build a reputation for quality merchandise.

Sells Interest in Adirondack Core & Plug Co.

[FROM OUR REGULAR CORRESPONDENT]

CARTHAGE, N. Y., February 9, 1931.—Announcement was made this week that John T. Gormley, formerly treasurer of the Adirondack Core and Plug Company, had disposed of his holdings to the other officials. The company owns vast tracts of timberlands in Northern New York and the logs cut up in the mill are made into wooden plugs before being shipped to paper mills in the New England and Middle Atlantic States. The business was organized nearly thirty years ago by John Whaling, Sr., and John T. Gormley and it has grown from a small concern to one of the largest of its kind in the country. The company plans to add new members to its board of directors but otherwise there will be no changes in business policies. George C. Whaling has succeeded Mr. Gormley as treasurer and John Whaling will continue as head of the company.

Paper Import Committee Active

That the four months from October 1 to February 1 showed action taken by the customs officials involving paper to a value of nearly $5,000,000 is told in a special report recently made by the Import Committee of the American Paper Industry.

Court decisions alone in that four-month period raised the duty classification or increased the dutiable value of paper valued at over $1,250,000. Administrative action taken by customs officials in the same period, not included in decisions by the customs courts applied to papers with an annual value of $1,800,000, and much of this paper is now being so classified for duty that it will be possible for domestic mills to secure much of this tonnage.

In addition to these items, the placing of a duty on novel and tablet news formerly imported duty free as standard news print applies to imports totaling about $1,800,000.

This report was made as an answer to friendly critics that the work of the Import Committee for the paper industry is not appreciated fully because of a failure to show the importance of its accomplishments in terms of dollars.

Since October 1 the customs courts have rendered decisions favorable to the domestic mills in 1348 cases, each involving at least one separate importation. The contentions of the importers have been sustained in only 248 cases, while this period saw the initiation of 440 new cases in which either misclassification or undervaluation was suspected.

In making this report, Warren B. Bullock, manager of the Committee asks: "Is there any other organization in any industry that can make a better showing of actual cash value to its supporters?"

"Too high tribute can not be paid to the efficiency, energy and ability of the customs officials, the courts and the staff of the Assistant Attorney General in charge of customs," adds Mr. Bullock. "They have welcomed our cooperation, in the realization that through us they have been able to secure information never heretofore available, to assist them in the proper discharge of their duties."

May Make Paper Under New Process

[FROM OUR REGULAR CORRESPONDENT]

POTSDAM, N. Y., February 7, 1931.—It is reported on good authority that the manufacture of paper under a newly discovered process will soon be introduced in Jefferson County by Lawrence J. Mannering, a prominent mill man and inventor, who for some time past has been conducting secret experiments in the timber lands of Northern Vermont near Lake Champlain. As the result of experiments launched in Maine several years ago it is said that the reforestation experts in the employ of the inventor have attained successful results in raising spruce trees on chemically doped land which will grow twice as fast as ordinary trees.

While the exact method is being kept secret for obvious reasons, it is understood that spruce trees large enough for conversion into paper can be produced with ten years of growth instead of twenty. In addition, it is learned that Mr. Mannering has perfected a chemical process in which the wood of any tree can be grown in any desired color from its infancy. The young inventor claims also to have discovered a new process to manufacture the particular grade of paper adapted for the making of bags and it is said that the product can be sold at far less per ton than it costs to turn out the same grade at the present time.

For many years Mr. Mannering owned and operated small paper bag mills in Maine but when the recent dullness affected his business he decided to dispose of his interests. His early experiments were carried on in Maine but later on he transferred this work to the woods in Northern Vermont where the facilities are conceded to be much better. He claims that the site for carrying on the experiments was changed because of the availability of raw material used in the new processes. In connection with the experiments he recently made an extensive trip to North Carolina and on returning immediately resumed his efforts.

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535 FIFTH AVENUE, NEW YORK, N. Y.

Section of the
Technical Association of the Pulp and Paper Industry
Edited by Ronald G. Macdonald, Secretary

Paper Applications In Electrical Industry*

By W. H. Anderson[1]

In the construction of electrical machinery and apparatus, four main classes of material are used. These are, conducting, magnetic, insulating and construction materials. In this article we are interested primarily in the insulating material, and specifically in that class of material which is used in enormous quantities and in a very great variety of ways, namely, the product of the paper maker. The importance of the insulating material used in electrical apparatus is little appreciated except by those who come in intimate contact with the design, construction and operation of electrical equipment. Unfortunately, while there is an enormous variety of materials which can be classed as insulation the mechanical characteristics of the insulating material available are not in any way comparable to the other materials used in electrical machinery. The major difficulties, both in the construction and in operation of an electrical device, are due to either primary or secondary failures of insulation. Furthermore, a specific limitation in the output of most electrical equipment is due to the temperature limits imposed by the organic material which must be used for insulation purposes and which consists in the main of paper, cloth, and various varnished and impregnating materials. An enormous amount of work has been done by electrical manufacturers to determine the maximum temperature at which such material may be operated, both continuously and for short periods in order to determine the capacity at which their machinery may operate and continue to function satisfactorily for an indefinite time.

Since paper, from the thinnest tissue to the heaviest board products enters very largely into the construction of electrical machinery the question of satisfactory grades is of the utmost importance to the electrical manufacturers. The use of paper as insulating material might be classified in many ways, such as the particular application for which it is used, the method of preparation, such as varnish treated paper, the production formed materials, such as Micarta and hard fiber, or a classification by the different grades and thicknesses used, such as five mil kraft. For the purpose of this discussion in bringing before the paper manufacturers and the technical man the importance of the subject, perhaps the latter method of classification will be more satisfactory and will be used.

Condenser Paper

Perhaps one of the best examples in which paper performs a major service in the construction and operation of an electrical device is the electric condenser or capacitor. This is a device made up almost entirely of alternate layers of very thin metal, such as tinfoil, separated from each other by a variable number of thicknesses of very thin high grade paper, the whole encased in a sealed container, after being thoroughly impregnated with oil or wax to increase the insulation qualities of the paper and also prevent the entrance of moisture or any other deleterious substance.

In the operation of the condenser, alternate layers of metal foil are connected to opposite sides of the circuit so that the full potential is impressed on every point of paper separation between the layers of metal. The most minute fault in any part of the paper may result in a breakdown of the whole condenser.

The paper used for this application is usually 0.0004 and 0.0005 inches in thickness although there are papers of somewhat greater thickness in use for certain types of condensers. It is essential that the paper be made from the best selected stock and it must be most carefully inspected and processed if the electrical manufacturer is to be in a position to insure the user that his condenser will not fail in service. Much of interest could be written to show the years of development and research which have been required and the extreme care that is necessary to produce the present day condenser which is now finding a very large use.

Until recently linen fibre was generally used in the manufacture of condenser paper but within the past year or two paper made from kraft wood pulp has been highly developed and has supplanted the linen to some extent. This is due largely to its lower cost, although kraft condenser tissue also possessed some excellent characteristics of its own that make it a desirable material for use in condensers.

A tissue paper, either kraft or linen, for this use should be of a close and even formation, uniform in thickness, quite dense, as free as possible from pin holes, weak spots and conducting particles and as non-porous as it is possible to manufacture it. The porosity of the paper is of considerable importance and freedom from any contaminating substances such as soluable salts is essential.

Wire Wrapping Paper

A very promising application for thin tissue papers in the electrical industry is for insulation on fine magnet wires in place of the customary cotton covering. This is a new development and may eventually replace cotton yarn entirely as insulating material on wires such as those in use for winding coils.

The paper is applied to the wire in narrow widths, ranging from one-sixteenth to one half inch, on machines similar in design to those now in use for covering with cotton.

Paper has several distinct advantages over cotton for this purpose, namely, it is lower in cost due to both its initial price and its greater covering ability, it may be applied to the wire at higher operating speeds, and lastly it has superior insulating qualities especially with regard to dielectric strength.

* Presented at the third meeting of the Lake States Section of TAPPI, Menasha, Wis., December 9, 1930.

[1] Member TAPPI, chemical engineer, Westinghouse Elec. & Mfg Co., E. Pittsburgh, Pa.

At the present time paper from 0.001 to 0.00175 inch in thickness appears to be the most desirable for this application, although as the development progresses, no doubt paper as thin as 0.0005 inch will be utilized for covering extremely fine wire. Papers ranging in thickness from 0.002 to 0.005 inch are now being used commercially for insulation on heavy copper wires used in winding transformer coils.

Papers for Slot Cell Insulation

Another class of papers in general use throughout the electrical industry are those used for slot cell insulation in motors and generators. The purpose of the paper in this application is to prevent the field windings of the motor or generator from coming in contact with the iron frame. If there were no protective material beneath the coils the insulating on the wires would probably be damaged in assembling, allowing the bare wire to ground itself.

It may be advisable, at this time, to outline briefly some of the particular characteristics desirable in a paper to be used for the above application. To begin with, it must have the ability to withstand the continued heat of service, therefore, it must be free from all objectionable impurities that might cause deterioration. The paper must be tough and strong in order that it will withstand the twisting and bending it undergoes in the operation of placing the coils in their proper position during the assembly of the motor or generator. It must have a certain amount of electrical breakdown resistance or dielectric strength. This should be equal to at least four or five times the operating voltage of the machine, although in many cases the dielectric strength of the paper runs far above this figure. Lastly, as paper of the type used for slot cell insulation, is usually made of several laminations, it must show no tendency to separate easily between its plies.

At the present time, there are two prominent types of paper in use for slot cell insulation. One type is a cotton paper that has been vulcanized or parchmentized by use of zinc chloride or sulphuric acid. This is commonly known as fish paper. The second is an all rag paper, untreated but very dense and highly finished. Certain grades of this second type are also made of a mixture of cotton rags and wood pulp. Cambric is often combined, using a film of varnish for adhesion, with the fish paper to give increased mechanical strength in addition to improvement in electrical qualities, but the rag insulating paper is usually applied in its original state. The stator of the motor is usually impregnated with a gum mixture after its assembly, this treatment adding to the electrical qualities of the paper.

Both of these papers have their own particular characteristics, the fish paper is usually the highest in dielectric strength, but the rag papers are tougher especially in the direction of the grain. They both endure the continued heat of service very well.

Papers for Laminated Phenolic Products

In the manufacture of laminated phenolic products used in the electrical industry, paper is an important ingredient. It is used as the fibrous material necessary to support the phenolic resins, the paper being coated or impregnated by passing it through the resin solution. The solvent is later evaporated in suitable ovens or towers leaving the resinous matter incorporated in the paper. This treated paper is cut into sheets of the desired size, the sheets are stacked together to make a product of the desired thickness and molded in a steam heated hydraulic press at temperatures ranging from 140 to 200 deg. C., and under pressures of 1000 to 3000 pounds per square inch. This process causes a change of state, or polymerization of the resinous matter, producing a hard, dense substance possessing many features that make it an ideal material for electrical as well as many other applications.

In addition to molding this treated paper into sheet form, it is also extensively used in the manufacture of tubes and rods and in numerous complicated molded shapes.

The development of the laminated phenolic products known by the trade name of Micarta, was started in this country over twenty years ago by the Westinghouse Electric and Manufacturing Company. Today, there are eight large producers of laminated phenolic materials in the United States, using from ten to fifteen million pounds of paper annually in addition to large quantities of cotton cloth and fibrous asbestos materials.

Micarta and other similar laminated sheet products are produced in thicknesses from 0.005 inch to three inches and in dimensions up to eight feet in length by four feet in width. This material has a density of 1.30 to 1.40, it is moisture resistant, and also resists the action of organic solvents and dilute acids. Its tensile strength is high, from 8000 to 15000 pounds per square inch, in fact per unit of weight, it is one of the strongest structural materials known. It has unusually good electrical properties, the one-sixteenth inch material having a dielectric strength or breakdown voltage of about 700 volts per mil of thickness. It also has low dielectric losses and high insulation resistance.

Some of the applications for material of this type in the electrical industry is for insulation in the radio field and in control apparatus. It also finds use as breaker strips on the doors of electrical refrigerators in place of wood. Excellent decorative effects such as wood grains, imitation marbles, solid colors and many other fancy designs may be produced on the surface sheet. Material of this type is used for wall panels, also furniture veneer and desk tops.

Laminated phenolic products are used in the paper industry for doctor blades on press rolls and for suction box covers. Paper base materials have been used for these applications but in general material having a cotton cloth base has proven to be more satisfactory.

Two general types of paper are used in the manufacture of laminated phenolic products, a strong tough paper, such as kraft for use where high mechanical strength is essential, and an absorbent cotton or purified wood cellulose paper for use where a product having superior moisture and chemical resisting properties is desirable. The latter types of paper also possessed better electrical properties in the finished laminated sheet. Paper, of either type, for use in the manufacture of phenolic products, must be uniform, especially in regard to its strength and absorptive qualities and most of the manufacturers have rigid specifications covering their base papers.

Paper for Mica Wrappers

Another use for paper in the electrical industry is for base material in the manufacture of mica wrapper and mica tape. For many high voltage applications, where the service conditions are severe, paper, either in its original state or impregnated with an insulating varnish, dos not afford enough protection, so mica with paper as a support is usually used.

The mica is built upon the paper in several layers using a suitable binding material to make it adhere. A thin tissue paper is then placed over the mica for surface protection.

Several types of paper are used for this work, depending upon the thickness desired in the finished material and also upon the voltage conditions under which it is to be used. For very thin flexible mica tape, from 0.004 to 0.007 inch in thickness, Japanese tissue is often used. This is a soft pliable paper made in Japan from the Matsumata fiber. It has good tensile strength when wet with the binding material and produces a finished tape that can be wound around small conductors easily.

In the manufacture of heavier mica wrappers, from 0.012 to 0.015 inch in thickness, fish paper, manila rope or kraft paper approximately 0.005 inch in thickness is used. The mica is built up on the fish paper in its original state but the rope or kraft paper is impregnated with a high grade clear varnish before the mica is applied. Paper for an application of this sort must not be very absorbent, otherwise the bond will penetrate the base paper and the mica will not adhere. These heavier wrappers have a definite

voltage rating and are not used for insulation above this value. They are all tested at this voltage plus an additional factor of safety before being used for insulation on large electrical equipment.

Condenser Bushing Paper

Paper is also used in the manufacture of bushings to insulate electrical conductors passing through a wall or into a metal tank. These bushings consist of layers of paper built up on the conductor. For high voltage work a condenser type bushing is used, having alternate layers of metal foil and paper, the purpose of the foil being to distribute the electrical stress.

For this application a light weight kraft paper is used, the paper being first coated with a binding material to make the individual layers adhere when the bushing is wound. The large condenser type bushings are wound in spiral form from narrow rolls of the paper, about three inches in width, on a machine similar to a lathe. After the winding operation, the bushing is machined to its proper shape and size and then given a final finishing coat of varnish. For all outdoor applications the bushings are protected from the weather by a porcelain covering over the exposed part.

The bushings are produced in many sizes ranging from very small ones for inside use to large condenser type, fifteen to twenty feet in length and about ten inches in diameter in the center. This latter type finds use on large transformers and circuit brakers.

Pressboard or Fullerboard

In addition to the preceding application of paper, the electrical industry consumes large quantities of pressboard commonly known as fullerboard. This is a high grade board product usually produced on a wet machine. It may be of all rag composition, or rag with various amounts of wood pulp, depending to a great extent upon the particular use for which the board is intended. The board is available in thicknesses ranging from 1/32 to 3/16 of an inch. It is also used in thicknesses up to ¼ of an inch, these being obtained by building up the thinner sizes to the desired dimensions.

Fullerboard is a dense but easily worked material. It should be free from all substances that might cause deterioration when it is used as an electrical insulator. It has good dielectric strength, this value being increased considerably when the board is immersed in insulating oil. For this reason it is especially valuable for service in applications where it is continually under oil.

Fullerboard is used as layer insulation in transformers, spacers in various types of coils, and in many other places where insulation value, in addition to mechanical strength and rigidity, is desired.

Conclusion

It has been the intention of the writer to consider only the more important applications of paper in the electrical industry with reference particularly to the plants of the Westinghouse Electric and Manufacturing Company. In addition to the various kinds of paper discussed, there are several others, such as water finished kraft paper, asbestos paper and glassine paper which are ued in some applications.

In conclusion, the writer wishes to express his appreciation to Mr. G. H. Mains of the Westinghouse Electric and Manufacturing Company for his valuable cooperation in the preparation of the section dealing with the properties of laminated phenolic products.

Powell River Machines Have Harland Drives

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., February 9, 1931.—The new news print machine built by the Dominion Engineering Works of Montreal and recently installed in the plant of the Powell River Company at Powell River, B. C., was equipped with Harland sectional electric drive made by the Harland Engineering Company of Canada, Ltd., Montreal. This machine drive was a repeat order, the two previous 234-inch machines also being driven by Harland sectional electric drives.

Rotary Lime Kilns with Anti-Friction Bearings

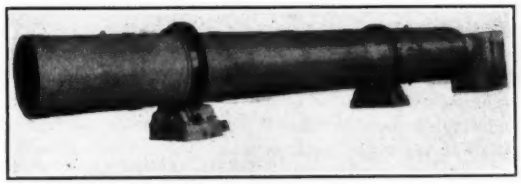
The Struthers-Wells Company of Warren, Pennsylvania, has just announced a new line of Timken-equipped rotary driers and kilns. This line includes all sizes from 2 feet 6 inches diameter to 10 feet diameter and lengths from 20 feet to 200 feet or more, as conditions demand.

A recent installation covered one 7 feet diameter × 40 feet long brick-lined kiln and five kilns 7 feet diameter × 60 feet long, of the same character, for installation in two plants of one large company. The complete weight of the shell, including the lining and the load, of the 60 foot size is 159,000 pounds.

These units are suitable for use in chemical plants, paper mills, or any industrial plant requiring the drying and the calcining of granular material in bulk. They may be supplied for pulverized coal, gas, or oil firing.

The construction is quite simple. The shell consists of heavy plate sections riveted or welded together and substantially butt-strapped to prevent warping or distortion under load or changes in temperature.

The kilns are equipped with lining of refractory material and



Timken-Equipped Rotary Drier

frequently a shell is provided with both a lined and an unlined section, so that a drying and a calcining operation can be performed in the same shell.

The weight of the shell is carried on two tires or riding rings of rolled steel, the 7 foot size having an 8 inch face. The tires are mounted so that the expansion of the shell will not affect their relation with the trunnion rollers. Two trunnion rollers, each of 28-inch diameter and 9-inch face, are provided for each tire. The rollers are mounted on a common base of heavy cast semi-steel. Each roller is mounted on a dead shaft, carried in pedestals, the Timken bearings being mounted in the roller hub. The bearing mounting is designed to hold the rollers rigidly in alignment, so as to reduce wear on both the roller tread and the tire. The pedestals can be adjusted in four directions quite easily to compensate for any inaccuracies in leveling of the base foundations during installation. Individual adjustment is provided for each pedestal.

The 40-foot kilns are driven by 15 h.p. variable speed wound rotor induction motors, through a Timken-equipped Farrel-Sykes herringbone gear reduction unit. The driving pinion of the gear reduction unit meshes with a large ring gear on the shell. The arrangement gives a total speed reduction ratio of 50 to 1, resulting in a maximum kiln speed of 4 r.p.m. What may be called the normal kiln speed is about 2 r.p.m. It is possibly a matter of interest that records on one kiln after installation showed a demand of only 3 h.p. at 2 r.p.m. owing to the thorough anti-friction-ization of all rotating parts.

Unity Paper Mills Resume Operations

[FROM OUR REGULAR CORRESPONDENT]

POTSDAM, N. Y., January 31, 1931—Operations were resumed this week at the Unity Paper Mills, following a shutdown of two weeks, and it is said that orders already booked guarantee activities for an indefinite period. The recent shutdown was made in order to complete repairs to a portion of the plant equipment. The company is employing a normal working force and now that its financial difficulties have been ironed out it is understood that expansion plans will be carried out in the near future.

Current Paper Trade Literature

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts and Bibliography of the Technical Association of the Pulp and Paper Industry

Clarence J. West, Chairman

For photostatic copies of articles appearing in the Abstract Section, address the chairman of the Abstracts Committee, Dr. Clarence J. West, National Research Council, 21st and B. Streets, Washington, D. C. The charge for this service is 25 cents per page. Copies of United States patents may be obtained from the U. S. Patent Office, Wahington, D. C., for 10 cents each. Send currency, not stamps.

Automatic Control Developed to Maintain Uniform Density of Suspensions. Anon. Pulp Paper Mag. Can. 28, 833-834 (Nov. 28, 1929.—A brief description of the Thyle consistency control unit. The apparatus consists of a smooth cylinder, rotated at a constant speed by an electric motor, in a pipe line or tank through which the stock is passing. As the consistency varies, a proportionate variable friction is exerted on the rotating cylinder. The changes in power required to drive the cylinder are registered through mercury switches, which in turn open and close magnetically-operated actuating coils in the reversing switch. The opening and closing of these switches direct the rotation of the motor on the dilution valve and govern the amount of dilution necessary to equalize the variations in consistency.—A.P.-C.

Paper Maker's Microscope. Anon. Paper Industry 11, 1778 (Jan. 1930); Paper Trade J. 90, No. 3, 54 (Jan. 16, 1930); Paper Mill 53, No. 2, 4 (Jan. 11, 1930).—A brief description of the microscope and microphotographic apparatus recently put out by the Bausch and Lomb Optical Co. for use in paper work.—A.P.-C. European sulphite mills.

Arrangements for the Manufacture of Tensionless Printing and Writing Paper, by Coating with Paraffin in the Solid Condition. Nikolaus Schroder, Wesseling bei Koln, Germany. German pat. 489,532 (April 9, 1927).—A revolving cylindrical brush takes up the paraffin in fine quantities from a solid block and brushes it on the paper led over a table upon which are placed one or more revolving brushes which rubs the paraffin finely and uniformly on the paper. The paper is then led over a heated revolving cylinder whereby the paraffin penetrates into the pores of the paper and disappears from the surface.—J. F. O.

Process for Coating Substances of Various Kinds, Especially of Fibrous Materials, Such as Paper and Board, with Rubber Latex Under Addition of Solutions or Emulsions of Natural Rosin. Heinrich Quittner, Vienna, Austria. German pat. 492,386 (May 11, 1926).—The rubber latex is mixed with a solution or emulsion of shellac.—J. F. O.

Revolving Spray Disc with Indentations for the Taking up of the Liquid to be Sprayed. Metallgesellschaft A.G. Frankfurt, a.M. Germany. German pat. 498,988, Kl. 12a Gr. 3 (August 30, 1925).—The indentation of the spray disc has a vertical bend in the wall.—J. F. O.

Moistening Paper and Tissue Bands with a Brush. Joh. Kleinewefers Söhne, Krefeld, Germany. German pat. 488,016 (July 13, 1926).—The moistening band is drawn over a tightening roll from the supply roll with uniform velocity without additional pressure. The band is then led perpendicularly past the moistening brush with uniform peripheral speed, and without stretch to the rewinding roll, whereby the distance of the brush from the moistening roll remains unchanged.—J. F. O.

Binding Materials Used in the Coated Paper Industry. Meyer Wochbl. Papierfabr. 61, No. 12, 383; No. 14, 446-449 (March 22, 29, 1930).—The binding materials used and their water-proofing properties, as well as the method used in coating paper is fully described.—J. F. O.

Screen for Ground Wood, Chemical Pulp and Similar Substances. R. E. Wagner, Karlstad, Sweden. Swedish pat. 68,301 (July 27, 1927).—A motionless or revolving perforated screen mantel with scoops having wings attached rotated in the mantel and the drum provided. The screen mantel is provided with two or more zones or sections which have no holes, inside of which the stock leaves after being diluted with water. The solid sections of the screen mantel are separated from the perforated zones.—J.F.O.

Flat Pulp Screen. Walter G. E. Smith. U. S. pat. 1,747,684. (Feb. 18, 1930).—The invention deals with mechanical features of the construction of the screen box so as to facilitate removal and replacement of the screen plates. Clamping devices are provided which are in part housed in vertical recesses in the side walls of the box, each comprising a clamping screw bearing on the ends of transverse beams provided for holding the screen plates in position and a supplementary clamping screw adapted to bear on longitudinal lining and clamping bars bearing on the ends of the screen plates to hold them in place.—A.P.-C.

Concerning the Washing and Maintenance of Felts. Fritz Hoyer, Kothen, Germany. Papier-Fabr. 28, No. 5, 68-72 (Feb. 2, 1930).—A review of the various devices used for washing felts and keeping them in condition.—J.F.O.

Putting on a Manchon. Wochbl. Papierfabr. 61, No. 9, 282 (March 1, 1930).—A description of the appliances used in putting a manchon on the couch roll.—J.F.O.

Concerning the Couch Press and its Work. K. Bernsau. Wochbl. Papierfabr. 61, No. 15, 471-4 (April 12, 1930).—Information and facts concerning the manchon given. A short haired manchon should be used with well beaten stock.—J.F.O.

Suction Box for Paper Machines. Gotred Hubert & Emil Olsen, Boen, Norway. Norwegian pat. 47,130.—The sides and the bottom of the suction box are formed of three rotating rolls and both ends of the suction box are kept tight by an endless rubber band which is led along over the bearings of both rolls lying at the level of the wire. The upper part of the third low lying roll and the end surface of the suction box being a polished metal plate.—J.F.O.

Record Production on Newsprint Machines. W. Schmid. Papier-Fabr. 28, No. 7,106-7 (Feb. 16, 1930).—American and European practice compared.—J.F.O.

New Fine Paper Machine. Otto Jung, Ravensburg. Bellstoff Papier 10, No. 4,254-7 (April, 1930).—A complete description of the machine as well as the beaters, etc.—J.F.O.

Theoretical Discussion on the Calculation of the Power Consumption for a Paper Machine. Walter Sackel. Papier-Fabr. 28, No. 15, 255-7 (Feb. 6, 1930).—Through a series of derived equations, the power consumption of a paper machine is computed.—J.F.O.

Nomographic Determination of the Power Required for a Paper Machine. Walter Sackel. Papier-Fabr. 28, No. 16, 265-7 (April 20, 1930).—Through equations, the author shows the applicability and ease in which power consumption can be calculated nomographically.—J.F.O.

Fourdrinier Paper Machine. Philipp Laux, Mannheim-Waldhof, Germany. German pat. 492,478 (May 19, 1925).—The machine possesses a suction roll placed between the last suction box and the couch roll and connected to a wire guide roll. The invention is characterized in that the wire guide roll is regulatable by having the wire led around the suction roll at the desired distance.—J.F.O.

Paper Machine. Harvey H. Jurgensen. U. S. pat. 1,767,889, (June 24, 1930).—A pressure roll bears on the couch roll opposite the suction box, at or near the point where the paper reaches the suction area. Means are provided for blowing hot air against the suction area. A spray is provided to clean the wire on its return stretch to the breast roll, the wire being supported by a roll placed directly under the spray. Removal of the excess water from the wire is effected by passing it successively over two rolls and a suction box just before it reaches the breast roll.—A.P.-C.

Dandy Roll. Walter K. Trotman. U. S. pat. 1,752,311 (April 1, 1930.—The cylinder is provided with a number of wave-like slots extending substantially in the same direction, so as to stimulate, when viewed collectively, a threadlike fabric appearance.—A.P.-C.

Machine for the Manufacture of Wall Paper Rolls. Heinrich Peine, Hildesheim, Germany. German pat. 488,857 (Dec. 19, 1929).—J.F.O.

Arrangement for a Machine for the Manufacture of Wall Paper Rolls. Heinrich Peine Hildesheim, Germany. German pat. 489,531 (July 12, 1928).—The invention concerns itself with a machine with a winding roll slit in its longitudinal direction and diagonally divided in the middle. It is characterized in that, the control of the drive of the winding roll is guided by the claws which take up the finished wound wall paper roll from the winding roll.—J.F.O.

Process for the Manufacture of Rolls Provided with Relief Figures Used to Bring Out the Colored Patterns on Paper, Carton, or Board. Hermann Palm, Naukochen, Germany. Finnish pat. 12,650 (May 17, 1927).—The prepared figures corresponding to the pattern and made of absorbant material are fastened to the roll surface.—J.F.O.

Machine for the Automatic Manufacture of Wallpaper Rolls. Heinrich Peine, Hildesheim, Germany. German pat. 493,156 (July 12, 1928).—J.F.O.

Safety Device for a Web of Paper, Placed at the Couch Roll. Jas. Fahnrick & Otto Weith, Guggenbach, Steiermark, Austria. Austrian pat. 116,298 (Sept. 15, 1929.

Removable Fourdrinier Machine. John W. Vedder, Frederick W. Lodding and George Lamoureux assignors to Rice, Barton & Fales, Inc. U. S. pat. 1,771,452 (July 29, 1930).—The removable fourdrinier frame is supported on wheels at floor level. The couch roll is not supported on the frame of the removable fourdrinier, but is mounted so that it may be displaced towards the suction boxes so as to give slack to the wire when the frame is in position inside the wire.—A.P.-C.

Fourdrinier Paper Machine. N. A. Jacobsen. Belg. pat. 367,200 (Feb. 28, 1930).—When part of the sheet sticks to the wire as it passes around the lower couch roll, it is removed by a small auxiliary roll placed under the lower stretch of the wire close to the couch roll and drops on a pivoted plate. The displacement of the latter opens a valve in a water line, which directs a jet of water on the sheet on the wire to prevent the tear from extending completely across the sheet.—A.P.-C.

Paper Making Machine. Ralph A. Hayward assignor to Kalamazoo Vegetable Parchment Co. U. S. pat. 1,772,484 (Aug. 12, 1930).—The table rolls next to the breast roll are formed with a central portion of uniform diameter and with outwardly expanding and portions acting to support the edges of the wire in an inwardly inclined direction.—A.P.-C.

Roll with Elastic Covering. M. Wenzel. Belg. pat. 363,473 (Oct. 31, 1929).—A strip of elastic material is wound helically around a roll provided with longitudinal grooves.—A.P.-C.

Means for Eliminating Wet Streaks in Paper. Arthur E. Broughton. U. S. pat. 1,764,777 (June 17, 1930).—An attachment is provided, comprising a supporting means extending across the machine, preferably at a point between the last press and the first drier roll. On this support are placed a number of normally stationary heating units, the position of which is adjustable across the width of the machine. Each unit is close to the sheet, but out of contact with it, so that it radiates heat on a definite relatively narrow longitudinal band of the sheet, extending a substantial distance in the direction of travel of the web.—A.P.-C.

Seam for Paper Machine Felts. E. Von Asten. Belg. pat. 364,373 (Nov. 30, 1929).—An additional piece is placed on the back of the ends to be joined, and is fastened to them by suitable means which do not project through to the front side of the felt.—A.P.-C.

Individual Drive for Paper Machine Drying Cylinders.—Siemens-Schuckertwerke Aktiengesellschaft. Belg. pats. 361,350 and 361,402, (July 31, 1929).—*No. 361,350*—Synchronous motors are used which are connected in parallel, with primary connections to the line and secondary to a common three-phase machine. *No. 361,402*—Motors driving driers in different rows are synchronized to the same angle, while the different motors of the same row are not synchronized.—A.P.-C.

Paper Glazing Machine. A Carriere. Belg. pat. 366,158 (Jan. 31, 1930).—The paper is pressed against the glazing roll by means of a felt covered roll the outer surface of which has depressions so that the whole surface of the paper is not pressed against the glazing roll. This produces a glazed design without the use of a marking felt.—A.P.-C.

Gearing for the Individual Electric Drive of Calender Rolls. F. Tacke Maschinenfabrik Komm-Ge. Belg. pat. 361,403.—The casing of the gearing rests on the trunnion of the roll and is supported on the frame of the bearing of the roll.—A.P.-C.

Modern Paper Machine and Calender Motor. K. Rupprecht, Berlin, Papier-Fabr. 28, No. 16, 271-4 (April 20, 1930).—A description and operation of the motor—J.F.O.

Device for Regulating the Speed of the Separate Motors in a Multiple Motor Drive. Siemens-Schuckert-Werke A.G. Berlin, Germany. German pat. 488,878 (Aug. 11, 1926).—The device which transmits the regulating speed of the single motor units one of which is driven at a suitable speed, is coupled together in series by means of regulatable transmission drives.—J.F.O.

Driving Device for Machines with a Driving Shaft Perpendicular to its Axis, Especially for the Rolls of a Paper Calender, Beaters, etc.. Siemens-Schuckert-Werke, Berlin, Germany. German pat. 491,931 (Dec. 20, 1927).—The invention concerns itself with a machine, whose distance between the two shafts is determined by connecting gears. The characteristic is that the connecting gearing not fastened to the regulatable axis is displacable perpendicular to the axis of the working shaft.—J.F.O.

Regulating Device for Holding the Rotation Relation of More Than Two Mechanical Uncoupled Motors or Transformer Sets Constant. Allegmeine Elecktrizitatsgesellschaft, Berlin, Germany. German pat. 492,439 (Nov. 3, 1925).—A regulator is used which is controlled by mechanical or electro-mechanical differential drive.—J.F.O.

Air Distributor for Paper Machine Calenders. Arthur de Repentigny. U. S. pat. 1,771,558 (July 29, 1930).—The distributor, which is placed near and parallel to the calendar roll, comprises an inner tube provided with a longitudinal slot directed toward the calender roll. A number of independently rotatable abutting sleeve sections are mounted on the tube, each being provided with a longitudinal slot of the inner tube.—A.P.-C.

Save-All. A. M. R. Karlstrom, Hylebruk, Sweden, Swedish pat. 68,317 (Oct. 3, 1928).—Air is introduced into the lower part of an air-tight enclosed save-all, in the liquid to be defibered. The container is held under vacuum so that the suspended matter is raised to the surface of the container with the aid of compressed air or gas, from where it is removed by suction. The container is so constructed, that it separates into a greater area the raised suspended matter. Also inside the container are one or more movable parts for the taking up of the suspended matter and its conveyance to the suction line, "the suction line is firmly connected to the container."—J.F.O.

New TAPPI Members

Frederick W. Bradshaw is at present a chemical engineer at the Jonquiere, Quebec mill of Price Bros. & Co., Ltd. Mr. Bradshaw has worked in several capacities for Price Brothers since he graduated in 1925 from McGill University.

Robert E. Cooper was until recently resident chemist at the Sturgeon Falls, Ontario, mill of the Abitibi Power and Paper Company. He has been with Abitibi for fifteen years and was formerly chemist for the West Virginia Pulp and Paper Company at Mechanicville, N. Y. and was on the pulp and paper staff of the Forest Products Laboratory at Madison, Wis. Mr. Cooper is a graduate of Pennsylvania State College and has written articles entitled, "Guide to Sulphite Cooking," "Longleaf Pine for Paper Pulp," and "Elimination of Pitch from Machine Wires." His present address is Box 101, Renfrew, Ontario.

Donald W. McCready is an instructor in chemical engineering at the University of Michigan and is a 1924 graduate of the Massachusetts Institute of Technology. He has worked for the Western Electric Company and the Universal Oil Products Company, and was chief chemist of the Gilbert Paper Company, Menasha, Wis.

Lyle C. Lang is the assistant sulphite superintendent of the Corner Brook, Newfoundland mill of the International Power and Paper Company and formerly held a similar position in the Marinette and Menominee Paper Company and was a chemist for the Kimberly-Clark Corporation at Kimberly, Wis. and the Falls Manufacturing Company at Oconto Falls, Wis.

Franz Sturm is a chemist at the Camas, Wash., mill of the Crown Willamette Paper Company and is a 1923 graduate of Stanford University. Mr. Sturm formerly worked for the Colgate-Palmolive-Peet Company.

William A. Taylor is president of W. A. Taylor & Co., Inc., 872 Linden avenue, Baltimore, Md., manufacturers of colorimetric devices for determining pH. Doctor Taylor is a graduate of Randolph-Macon College and Johns Hopkins University, and was formerly president of the La Motte Chemical Products Company, chief of the organic department of Edgewood Arsenal, chief of the sulphur color department of DuPont in Wilmington, and instructor at the University of Wisconsin.

Merrill A. Youtz is research director of the Northern Paper Mills, Green Bay, Wis. and was formerly a research chemist for the Standard Oil Company of Indiana. Doctor Youtz graduated from Lawrence College in Appleton, Wis. and the Massachusetts Institute of Technology.

J. C. Nutter was with the Nashwaak Pulp and Paper Company in St. John, New Brunswick until the mills of this company were recently shut down permanently. He is now in the research department of Price Brothers Company, Ltd., in Quebec City, P. Q.

Vacuum Oil Co. Joins TAPPI

The Vacuum Oil Company which has contributed much to the development of the industry has just become a member of the Technical Association of the Pulp and Paper Industry.

Few stories of the growth of great corporations are more romantic than that which records the progress of the Vacuum Oil Company. It is one of the oldest oil companies in business today, for it was established under its present name in 1866, only seven years after Drake's pioneer discovery of oil in Titusville, Pa.

It is the largest oil company making the manufacture and sale of lubricants its specialty and it has been generally credited with having introduced petroleum lubrication to the world. Prior to this tallow and fats were the most used lubricants. The prejudice against petroleum lubricants was dispelled by the service rendered by the Company's engineers who devoted much of their time to studying the use requirements of the oils and developed them to meet the most exacting demands of the machinery to which it was applied. This became the foundation of the Vacuum Oil Company's present policy of developing a grade for each type of service.

Hiram B. Everest, a Rochester, N. Y. grocer, who had been a farmer, was led to invest in the development of a still invented by a local carpenter, one Matthew P. Ewing. Ewing's still was expected to change the entire crude oil content into kerosene and the Vacuum Oil Company was formed in 1866 to manufacture under this new, and as it proved, revolutionary process. Although it did not accomplish all that was expected of it, Everest saw interesting possibilities in the residue which, due to distillation under vacuum, came through unscorched. One of the possibilities was its use as a lubricant. Another use was in the currying of leather. The Company started in a small way and made such slow progress in its early stages that Ewing became discouraged and sold his interest.

In 1879 control was purchased by the old Standard Oil Company which saw the need for an affiliated organization to manufacture lubricants of a higher grade than could be produced by the ordinary refineries specializing in kerosene. Mr. Everest retired shortly after the purchase was made but his son, C. M. Everest continued with the organization and under him the present intensive research, advertising and selling program has extended the companies' activities throughout the world. Much expert study of machinery has been made to determine how it may be best lubricated and what is the best lubricant to use.

This study has included pulp and paper mill machinery, and has been covered in an interesting book entitled "Pulp and Paper Mill Lubrication" which may be obtained from the Vacuum Oil Company, 61 Broadway, New York, on request. This book contains engineering knowledge and operating data that touches every part of pulp and paper mill operation. The representative of the Vacuum Oil Company in the Technical Association is T. E. Dial.

New Calender Rolls With Interleaved Filling

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., February 9, 1931.—The new calender rolls with interleaved filling now being manufactured in Holyoke by B. F. Perkins and Son, Inc., are attracting much interest in the paper industry.

In this new patented roll, the filling is a new development, largely for use in glassine calenders finishing highly transparent papers carrying a large per cent of moisture. In finishing papers of this kind, the intermediate chilled iron rolls must be heated to a relatively high degree and the new interleaved filling resists the action of the heat.

The new rolls are made to have the desired resiliency and finishing surface for the best calendering effect, but there also has been included in the making of the roll, heat resisting elements that will retard or obviate injurious effects of the heat.

Rolls of this filling have not been in use long, aside of a few made for experimental purposes, but the record of 1930 indicates the success of this new departure in the making of calender rolls. In seven mills some 200 rolls replaced in use the straight blue cotton rag filling. The heat resisting elements render the roll body heat-resisting so that the elements may function to provide a body having the desired finished characteristics protected against heat deteriorating effects by heat resisting elements.

Engineers For Paper Company Non-Committal

DENVER, Col., February 7, 1931.—H. M. Nelson and G. S. Wood, engineers for the International Paper Company of New York, have been making inspections in the vicinity of Alamosa, Del Norte and Pueblo, Colorado, and in view of the fact that the International has purchased timber in Colorado, the gossipers have it that the inspection is for the best mill or mills sites, but the engineers have nothing to say.

Convention Program of Technical Association

Pennsylvania Hotel, New York, February 17-19, 1931

MONDAY, FEBRUARY 16

10:00 A.M.—Executive Committee Meeting.
Registration at the Pennsylvania Hotel.

TUESDAY, FEBRUARY 17

9:30 A.M.—Grand Ball Room.
General Session—M. A. Krimmel, chairman.
President's Address.
Secretary-Treasurer's Report.
10:30 A.M.—Joint program arranged by the Operating and Engineering Divisions.

1. Steam Consumption in the Drying of Paper by F. W. Adams, Massachusetts Institute of Technology.
2. Transfer of Heat Through Cast Iron Drier Shells, by F. C. Stamm, The Upson Company.
3. At What Temperature Should Paper be Dried, by Ogden Minton.
4. Heat Conservation in Paper Mills, by D. K. Dean, Foster-Wheeler Corporation.
5. Felt Operation, by R. W. Pattison, American Writing Paper Company.
*6. Low Pressure Steam and Paper Machine Drying, by Donald Ross-Ross, Howard Smith Paper Mills, Cornwall, Ont.
*7. The Efficient Drying of Paper, by E. W. G. Cooper, Crown Williamette Paper Company, Camas, Wash.
*8. Suction Rolls, by B. T. McBain.

Papers marked with an asterisk are to be read by title only. Many of these are published in the preprints. Any member attending the meeting may initiate discussion on all or any part of any paper on the program. Members and others who do not attend the meeting may send their written discussion of any paper to R. G. Macdonald, Technical Association of the Pulp and Paper Industry, 370 Lexington Avenue, New York. Such communications will be passed along to the authors and a complete transcript will appear in Technical Association Papers, Series XIV.

2:00 P.M. Exhibit Room No. 6.
Operating Division—F. C. Clark, chairman.
Finishing, Processing and Converting Committee—Norman Clark, chairman.

9. Di-electric Point in the Manufacture of Casein, by R. W. Bell, U. S. Bureau of Dairy Industry.
10. Further Study of Paper Coating Minerals and Adhesives, by M. B. Shaw, G. W. Bicking and M. J. O'Leary, U. S. Bureau of Standards.
11. Progress Reports.
   a. Standard Specifications for Coating Raw Stock, by J. J. O'Connor.
   b. Testing of Raw Materials for Coating, by O. W. Callighan.
   c. Roll vs. Brush Coating Machines, by F. W. Egan.
   d. Preparation of Coating Materials, by B. K. Steadman.
   e. Buying, Evaluating and Storing of Pulp Colors, by K. T. King.

330 P.M. Exhibit Room No. 6
Management Division—P. H. Glatfelter, chairman.
Waste Committee—C. M. Baker, chairman

12. Water Purification for Color Removal, by A. S. Behrman, R. H. Kean and H. Gustafson, International Filter Company.
13. Waste Committee Annual Report, by C. M. Baker, American Paper and Pulp Association.

2:00 P.M. Grand Ball Room
Testing Division—E. O. Reed, chairman
Paper Testing Committee—B. W. Scribner, chairman

14. Progress Reports on Development Projects
   a. Acidity by P. F. Wehmer
   b. Water Resistance by P. F. Codwise
   c. Grease Resistance by R. C. Griffin
15. Determination of Alpha Cellulose Content and Copper Number of Paper, by J. O. Burton and R. H. Rasch of the Brown Company.
16. The Volumetric Composition of Paper, by P. S. Billington, Forest Products Laboratory.
17. The Density of the Fiber Substances of Pulps and Paper by P. S. Billington and E. L. Keller.
18. The Relation of Fiber Properties to Sheet Properties, by R. H. Doughty, Forest Products Laboratory.

2:00 P.M. Exhibit Room No. 2
Engineering Division—J. F. Rhoades, chairman.
Materials of Construction Committee—J. D. Miller, chairman

19. Hard Facing in the Pulp and Paper Industry, by W. A. Wissler, Union Carbide and Carbon Company.
20. Galvanic Behavior of Chromium-Nickel-Iron Alloys in Sulphite Liquors, by W. A. Wesley and F. L. Le Que, International Nickel Company.
21. Corrosion Reduced by New Construction Materials, by J. A. Lee, Chemical and Metallurgical Engineering.
22. Two Years' Progress in Corrosion Resistance by J. A. Mathews, Crucible Steel Company.
23. Copper Pipe Advantages in the Paper Industry by C. A. Hill and L. T. Summers.

WEDNESDAY, FEBRUARY 18

9:30 A.M. Grand Ball Room
Operating Division—F. C. Clark, chairman
Stuff Preparation—E. G. Ham, chairman

24. Freeness Testing, by F. C. Clark, Skinner & Sherman Inc.
25. Freeness Testing, by F. L. Simons, Skinner & Sherman Inc.
*26. Classes of Color Used in Dyeing of Paper, by H. E. Pratt Pejepscot Paper Co.
27. Practice and Control of Beating and Jordaning, by F. W. Motschman.

10:30 A.M. Grand Ball Room
Testing Division—E. O. Reed, chairman.
Pulp Testing Committee—D. E. Cable, chairman.

28. Evaluation of Unbleached Pulps, by W. F. Moore and W. R. Willets.
29. British and American Pulp Testing Methods, by H. W. Laymon.
30. Evaluation of Wood Pulp, by W. F. Moore and W. R. Willets.
31. Determination of Alpha Cellulose, by W. R. Willets.

9:30 A.M. Exhibit Room No. 2
Engineering Division—J. F. Rhoades, chairman.
Heat and Power Committee—J. D. Rice, chairman.

32. Resistance of Pipe to Paper Stock Flow, by F. Forest, Allis-Chalmers Company.
33. Synchronous Motors in the Paper Industry, by D. R. Shoults, Westinghouse Electric & Mfg. Company.
34. Steam Turbines in Paper Mills, by R. G. Standerwick.
35. Utilization of the Fuel Value of Sulphite Waste Liquor, by H. S. Kimball.
36. Burning Pulp Mill Refuse, by H. W. Beecher.
37. Trend of Steam Pressures and Temperatures in the Paper Industry, by John Van Brunt, vice president, Combustion Engineering Company.
38. Mechanical Handling of Pulp Wood by J. W. Boyd, Maine Electric Company

9:30 A.M. Exhibit Room No. 6

Operating Division—F. C. Clark, chairman.

Alkaline Pulping Committee—E. S. Hinman, chairman.

39. The Neutral Sulphite Pulping Process, by M. W. Bray, P. R. Eastwood, Forest Products Laboratory.

40. Pulping of White Pine by the Soda and Soda-Sulphur Process, by M. W. Bray, J. S. Martin and L. A. Carpenter, Forest Products Laboratory.

11:00 A.M. Exhibit Room No. 6

Testing Division—E. O. Reed, chairman.

Wood Testing Committee—W. H. Monsson, chairman.

41. Wood Evaluation for Soda Pulp Manufacture, by H. W. Morgan, Oxford Paper Co.

42. A Rapid Moisture Test for Wood by C. R. Blomstedt, Bogalusa Paper Company.

2:00 P.M. Grand Ball Room

General Session—M. A. Krimmel, chairman.

43. What Patents Mean to the Paper Technologist, by Joseph Rossman.

44. Development Reports, by Divisional and Committee Chairmen.

Provision will be made so that each committee can meet to discuss plans for the coming year and to consider progress reports. A definite plan of work should be prepared by each committee. Each committee chairman is expected to present a report during this meeting covering not only the progress record of the committee during the past year but also a brief review of the important developments that have taken place in the industry insofar as the specific field served by the committee is concerned.

THURSDAY, FEBRUARY 19

9:30 A.M. Parlor B

Engineering Division—J. F. Rhoades, chairman.

Heat and Power Committee—J. D. Rue, chairman.

44. The Steam Accumulator in the Board Mill, by N. H. Sandberg, Waldorf Paper Products Company.

45. Purchase of Electric Energy and Steam by Southern Paper Industry, by J. R. Lester and G. H. Finks, Alabama Power Company.

Open Forum Discussion.

46. Steam and Power Plant Location Factors, led by J. F. Rhoades, Mead Corporation.

47. Reclamation and Salvage of Flue Heat, led by R. Trautschold

9:30 A.M. Parlor No. 1

Raw Materials Division—J. L. Parsons, chairman.

Fibrous Raw Materials Committee—Jessie E. Minor, chairman.

48. Relation of Acidity Tests to the Probable Permanence of Paper.

49. Copper Number Determination and its Relation to Paper Permanence, by P. D. Davidson, Strathmore Paper Company.

50. The Viscosity of Cuprammonium Solution as a Measure of Fiber Quality, by J. L. Parsons.

51. The Alpha Content as a Measure of Fiber Quality.

52. The Soda Soluble Test as a Measure of Half Stock, by C. C. Schneider, Hawthorne Paper Company.

53. The Value of Artificial Aging in Predicting Paper Permanence.

54. Permanence from the Standpoint of a Paper User, by H. M. Lydenberg, New York Public Library.

9:30 A.M. Parlor No. 2.

Operating Division—F. C. Clark, chairman.

Acid Pulping Committee—L. E. Jonte, chairman

55. Rapid Circulation in Sulphite Cooking, by R. W. Hovey and A. D. Merrill.

56. The Pulping of Southern Black Gum by the Sulphite Process, by G. H. Chidester, Forest Products Laboratory.

57. The Paulson Acid Absorption System, by W. H. Swanson and W. L. McCabe.

58. Developments in the Sulphite Pulping Industry, by L. E. Jonte.

11:00 A.M. Parlor No. 2

Mechanical Pulping Committee—J. H. Slater, chairman.

59. Further Studies on Groundwood Pulp Evaluation, by E. R. Schafer and M. Heinig, Forest Products Laboratory.

60. One Hundred Per Cent Groundwood for Newsprint by O. L. E. Weber and W. J. Garding, Watab Paper Company.

ANNUAL LUNCHEON

1:00 P.M. South East Ball Room

General Session—M. A. Krimmel, chairman.

Business Meeting.

Nominating Committee Report

Election of Officers

Resolutions

Address: The Technician in the Paper Industry, by H. P. Carruth, vice president of the Mead Corporation, Chillicothe, Ohio.

Address: Research and Development in the Pulp and Paper Industry—A Look Ahead, by Dr. G. J. Esselen, consulting chemical engineer, Boston, Mass.

Address: Vocational Education in the Paper Industry, by J. C. Wright, director of the Federal Board of Vocational Education, Washington, D. C.

OTHER PAPERS

The following papers will be included in the published papers and may be discussed at the meeting of the Non-Fibrous Raw Materials Committee meeting on Wednesday afternoon.

Report of the Non-Fibrous Materials Committee, by A. C. Dreshfield.

Lime and Limestone, by O. L. Cook, Lehigh Lime Company.

Chlorine and Bleaching Powder, by R. T. Baldwin, Chlorine Institute.

New Moisture Proof Gummed Tape

The Robert Gair Company has just announced corrugated containers with "Gairtite," a new moistureproof gummed tape which sticks fast and insures a strong tight box under all conditions of humidity.

This tape utilizes the well known reputation of odorless asphalt for moisture resistance by burying an unbroken film of this material between cambric and gummed kraft paper. After nearly a year spent in development the tape has already been used on the vertical "manufacturer's joint" of thousands of corrugated boxes. These cases have been exposed to every conceivable condition of atmospheric moisture with no failures from softening of the glue—a condition so often encountered when ordinary gummed tape becomes damp.

This development was forced by the recent rapid growth of the frozen food industry and the increased use of refrigeration with its damp atmospheres. Corrugated board, because of its high insulating value, is necessary for such packages. The adoption of moisture proof tape will not only accelerate the taking of full advantage of this economical insulation but will also remove a vexing problem which has faced exporters to the tropics where damp sea air and condensation have often caused boxes to open up at the taped joint.

Rolland Paper Co. Makes Statement

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., February 9, 1931.—Net earnings of Rolland Paper Company in 1930 totalled $379,358 after all expenses and provisions for bad debts, federal and general taxes. This compared with $440,480 in 1929, when no provision for income tax was made.

After deduction of bond interest, depreciation, preferred dividends and proportion of organization expense written off, all of which figures were identical with 1929, there remained a sum equal to $1.16 a share on the common stock as compared with $2.18 a share in the previous year.

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Camas, Wash.—The Crown Willamette Paper Company, Camas, has made application to the State Supervisor of Hydraulics, Tacoma, for permission to construct and operate a water supply system from the Columbia River, appropriating 50 second feet of water from that stream, the development to be used for paper manufacture. The work is estimated to cost about $50,000, and is reported as preliminary to the expansion of company mill at Camas. Company headquarters are at 343 Sansome street, San Francisco, Cal.

Kingsport, Tenn.—The Tennessee-Eastman Corporation, Kingsport, has authorized plans for a new addition to its local cellulose mill, consisting of a group of buildings, reported to cost over $400,000, with equipment. It is expected to place the work under way at an early date, and have the unit ready for service early in October. The company is a subsidiary of the Eastman Kodak Company, Kodak Park, Buffalo, N. Y.

Brooklyn, N. Y.—The Novelty Display Box Company, Inc., recently organized by local interests and represented by Benjamin H. Fried and Milton Schrier, 51 Chambers street, New York, is said to be planning the early operation of local plant for the manufacture of standard and other paper boxes and containers. The new company is capitalized at $10,000.

Cloquet, Minn.—The Northwest Paper Company has completed superstructure for its proposed new mill addition, one-story, 125 x 725 feet, and is proceeding with the installation of equipment for different departments, including beater room, machine department, finishing division and pump storage. It is proposed to have the unit ready for service at an early date; it will provide for considerable increase in present capacity. General contract has been carried out by the James Leck Company, 211 South Eleventh street, Minneapolis, Minn. The Jacobson Engineering Company, Plymouth Building, Minneapolis, Minn., is engineer.

Bogalusa, La.—The Bogalusa Paper Company is said to have plans nearing completion and will soon take bids for a new addition to local mill, consisting of a one-story unit, 72 x 84 feet, reported to cost over $40,000, with equipment. Superstructure will be placed in progress at an early date. Company engineering department is in charge.

Greenbay, Wis.—The Northern Paper Mills, Day street, has superstructure in progress on a proposed new addition to plant, for chemical division, to be two-story, 32 x 106 feet, reported to cost more than $70,000, with equipment. It is proposed to have the structure ready for occupancy at an early date. H. W. Gochnauer is plant engineer.

Kalamazoo, Mich.—The Kalamazoo Twisting Corporation, recently organized with a capital of $25,000, and headquarters at 1915 Factory street, is said to be planning operation of local plant for the production of twisted paper products as used for the manufacture of fiber cord, etc. The new company is headed by L. M. Richardson, Kalamazoo, and W. L. Viergever, Grand Rapids, Mich.

Canton, N. C.—The Champion Fibre Company, Canton, affiliated with the Champion Coated Paper Company, Hamilton, Ohio, will limit proposed extensions and improvements to local plant, previously announced, to repair and replacement of equipment as may be actually needed at the present time. Existing plant capacity will be continued, it is understood, without change.

Chester, Pa.—The Scott Paper Company is continuing on regular production schedule at its local mill with full working force, and will hold to this basis for an indefinite period. In connection with corporate report, the company shows a net profit for 1930, of $986,846, as compared with $893,250, in the preceding year.

Grand Rapids, Minn.—The Blandin Paper Company, Grand Rapids, has work under way on proposed new addition to mill, previously reported in these columns, consisting of a main one-story structure, 48 x 300 feet, to be equipped primarily for expansion in the machine department. It is proposed to begin equipment installation at an early date. Miscellaneous contracts for finishing the building have been awarded; the general contract is being handled by the James Leck Company, 211 Eleventh street, Minneapolis, Minn. The work is reported to cost over $150,000. The Jacobsen Engineering Company, Plymouth Building, Minneapolis, Minn., is engineer.

De Pere, Wis.—The Nicolet Paper Corporation has been chartered under state laws to take over and expand the Nicolet Paper Company, with local mill for the production of coated and other paper stocks. The company was formerly known as the Shattuck & Babcock Company Division of the American Writing Paper Company, Holyoke, Mass. The incorporators of the new company include D. C. Cooley and Lenore Steinberg, understood to be identified for incorporation purposes only.

New York, N. Y.—Joseph Albert & Son, Inc. has been organized by officials of company heretofore operating under the name of Joseph Albert, to take over and expand the latter organization, which operates a paper box manufacturing plant at 140 Greene street, New York. The new company is capitalized at $10,000, with principal incorporator, Joseph Albert.

Albany, N. Y.—The G. A. Ackermann Paper Mills, Inc., Chicago, Ill., has filed notice of organization with a capital of 100 shares of stock, no par value, to operate in New York. The company was recently chartered under Illinois laws with capitalization noted, to take over and expand a company of similar name with plant at Fifty-fourth avenue and Fourteenth street, Cicero, Chicago.

Chicago, Ill.—The Pharmacy Paper Box Company, recently organized with a capital of $200,000, to manufacture paper boxes and containers, will succeed to and expand company of same name with two local plants at 2334 West Polk street and

337 East Illinois street, respectively. Incorporators of the new company are Nathan and Samuel Karasik.

Newfane, N. Y.—The Lockport Felt Company, specializing in the production of papermakers' felt, etc., is completing the construction of a new addition to its plant to provide a total floor space of 150,000 square feet. It is proposed to occupy the new unit before the close of this month. It will be used for expansion. William H. Lee is treasurer and general manager.

New York, N. Y.— Joseph Rebholz, operating a paper box-manufacturing plant at 515 Greenwich street, has organized a new company under the name of Joseph Rebholz, Inc., with capital of $30,000, to take over and expand the present business. It is understood that increased output of paper containers will be arranged. Mr. Rebholz will be president of the new company, and Charles Rebbholz one of the other officials of the organization.

Kalamazoo, Mich.—The Saniwax Papar Company, Kalamazoo, manufacturer of waxed paper specialties, is running at close to normal production schedule with employment of same sized working quota as in January of last year. It is proposed to hold to present manufacturing basis for an indefinite period.

Tariff Commission To Investigate Casein

The United States Tariff Commission has sent notice of an investigation of casein reading in part as follows:—

"The United States Tariff Commission on this 23 day of January, 1931, under and by virtue of the powers granted by law and pursuant to the rules and regulations of the Commission, and in accordance with Senate Resolution No. 390, 71st Congress, 3rd Session, and Section 336 (a) (2) and (3) of Title III of the Tariff Act of 1930, hereby orders an investigation for the purposes of said Section 336 of the differences in costs of production of, and of all other facts and conditions enumerated in said section with respect to, the articles described in paragraph 19 of Title I of said tariff act: namely, casein or lactarene and mixtures of which casein or lactarene is the component material of chief value, not specially provided for, being wholly or in part the growth or product of the United States, and of and with respect to like or similar articles wholly or in part the growth or product of competing foreign countries.

"Ordered further, that all parties interested shall be given opportunity to be present, to produce evidence, and to be heard at a public hearing in said investigation to be held at the office of the Commission in Washington, D. C., or at such other place or places as the Commission may designate, on a date hereafter to be fixed, of which said public hearing prior public notice shall be given by posting the notice thereof for thirty days at the office of the Commission in the City of Washington, D. C., and at the office of the Commission at the port of New York and by publication in "Treasury Decisions" published by the Department of the Treasury, and in "Commerce Reports" published by the Department of Commerce, copies of which said publications are obtainable from the Superintendent of Documents of the Government Printing Office in Washington, D. C."

Inland Empire Paper Co. Builds

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., February 7, 1931—The Austin Company, contractors for the additions to the plant of the Inland Empire Paper Company at Millwood, Wash., near Spokane, has a force of 75 men working on the construction program.

The largest part of the new two-story brick warehouse, 41 by 70 feet, has been completed. The last unit of this structure will be built when the old warehouse is torn down to make way for the new building. The last of the concrete has been poured on six new pulp storage tanks having a capacity of 200 tons each.

Box Board Production for November

Monthly statistics, covering the period from January 1, 1929, to November 30, 1930, inclusive on production, shipments, etc., of box board, based on reports submitted to the Bureau of the Census by 97 establishments operating 130 plants, are presented in the following table. The capacity data shown below varies according to the normal number of working days in each month.

Year and Month	Operation: Inch hours: Capacity	Operation: Inch hours: Operated	Operation: Per cent of Capacity	Production: Short Tons: Capacity	Production: Short Tons: Output	Production: Per cent of Capacity	New Orders (Short Tons)	Unfilled Orders (end of month) (Short Tons)
1929								
Jan.	12,166,180	9,548,914	78.5	332,202	255,795	77.0	246,126	89,643
Feb.	11,230,320	8,661,380	77.1	306,648	233,103	76.0	233,577	89,936
March	12,188,644	9,641,580	79.1	333,424	263,252	79.0	271,118	98,016
April	12,188,644	9,495,901	77.9	333,424	256,486	76.9	254,216	99,610
May	12,188,644	9,641,050	79.1	333,424	266,484	79.9	252,122	88,048
June	11,719,850	9,012,771	76.9	320,600	233,164	72.7	221,429	73,330
July	12,188,644	9,227,606	75.7	333,424	242,265	72.7	245,457	76,091
Aug.	12,657,438	9,805,677	77.5	346,248	265,063	76.6	269,951	80,634
Sept.	11,251,056	8,745,015	77.7	307,776	242,032	78.6	251,189	85,866
Oct.	12,657,438	9,707,460	76.7	346,248	269,611	77.9	269,300	84,237
Nov.	11,681,450	8,689,622	74.4	320,175	241,780	75.5	219,635	66,125
Total 11 mo.	132,118,308	102,176,976	77.3	3,613,593	2,769,035	76.6	2,734,120	.....
Dec.	11,681,450	6,843,974	58.6	320,175	182,699	57.1	175,090	58,612
Total year	143,799,758	109,020,950	75.8	3,933,768	2,951,734	75.0	2,909,210	.....
1930								
Jan.	11,691,264	8,772,273	75.0	329,628	236,344	71.7	243,612	69,940
Feb.	10,888,704	8,971,760	82.4	306,432	220,014	71.8	213,181	62,134
March	11,796,096	8,643,344	73.3	331,968	229,979	69.3	225,782	58,591
April	11,796,096	8,580,845	72.7	331,968	245,167	73.9	249,735	66,868
May	11,796,096	8,377,741	71.0	331,968	239,186	72.1	234,448	63,237
June	11,342,400	7,841,532	69.1	319,200	221,525	69.4	220,965	58,866
July	11,796,096	7,892,964	66.9	331,968	222,788	67.1	230,380	65,819
Aug.	11,796,096	8,029,756	68.1	331,968	224,391	67.6	221,840	63,518
Sept.	11,342,400	7,907,075	69.7	319,200	*228,257	*71.5	*226,899	*61,978
Oct.	12,249,792	*8,391,432	*68.5	344,736	*253,889	73.6	*247,209	*57,377
Nov.	10,888,704	7,083,088	65.0	306,432	202,589	66.1	199,765	55,162
Total 11 mo.	127,383,744	90,491,810	71.0	3,585,468	2,524,129	70.4	2,513,816	.....

* Revised.

Year and Month	Shipments of boxboard (Short Tons)	Stocks of boxboard, end of month (Short Tons)	Consumption of waste paper: Capacity (Short Tons)	Consumption of waste paper: Consumed (Short Tons)	Per cent of Capacity	Stocks of waste paper end of month: At plants (Short Tons)	Stocks of waste paper end of month: In transit and unshipped purchases (Short Tons)
1929							
January	251,812	61,721	317,980	243,404	76.5	141,389	49,115
February	233,284	61,540	293,520	222,019	75.6	130,890	54,132
March	263,038	61,754	319,046	246,660	77.3	142,026	51,531
April	252,622	65,618	319,046	236,150	74.0	147,527	67,736
May	263,684	68,418	319,046	249,880	78.3	150,250	53,157
June	236,147	65,435	306,775	232,060	75.6	156,352	55,543
July	242,696	65,004	319,046	214,574	67.3	170,745	62,967
August	265,408	64,659	331,317	256,339	77.4	171,218	59,480
September	245,957	60,734	294,504	231,029	78.4	175,279	87,700
October	270,929	59,416	331,317	254,163	76.7	186,806	70,020
November	237,747	63,449	306,725	230,046	75.0	193,534	51,650
Total 11 mos.	2,763,324	.....	3,458,322	2,616,324	75.7	.....	.....
December	182,603	63,545	306,725	172,336	56.2	197,841	49,012
Total year	2,945,927	.....	3,765,047	2,788,660	74.1	.....	.....
1930							
January	232,284	67,605	318,786	223,288	70.0	180,055	54,142
February	220,987	66,632	296,429	216,717	73.1	179,497	54,577
March	229,325	67,286	321,126	229,909	71.6	192,957	54,629
April	241,458	70,995	321,126	230,993	71.9	181,125	51,950
May	238,079	72,102	321,126	232,581	72.4	185,972	34,919
June	225,336	68,291	308,775	210,793	58.3	184,451	38,241
July	223,427	67,652	321,126	207,596	64.6	175,645	43,393
August	224,141	67,902	321,126	215,879	67.2	187,508	36,108
September	*228,439	*67,720	308,775	*223,071	*72.2	165,499	45,960
October	*251,810	*69,799	333,477	*228,588	*68.5	177,486	34,910
November	201,980	70,408	296,429	191,021	64.4	184,375	30,564
Total 11 mos.	2,517,266	.....	3,468,301	2,410,436	69.5	.....	.....

* Revised.

New Rhinelander Greaseproof Parchment Catalog

Rhinelander Paper Company, of Rhinelander, Wisconsin, has just published a handsomely bound and artistically illustrated booklet describing Rhinelander Greaseproof Parchment. The booklet, which is most interesting and authoritative, explains what makes greaseproof paper grease proof and many other instructive facts. This information is given in a clean-cut, concise style, free from hyper-technical terms. The work will undoubtedly prove a valuable addition to any technical library.

New York Trade Jottings

Dard Hunter, president of Dard Hunter Associates, Lime Rock, Conn., spent several days in New York last week.

* * *

Fraser Paper, Ltd., is now installed in its new local headquarters, Room 1213, 230 Park avenue, New York.

* * *

The Rose Paper Box Company has been incorporated under the laws of the State of New York, with a capital stock of $10,000.

* * *

Julius Butler, of the Butler Paper Corporation, Chicago, is visiting New York, and is making his headquarters at the Ritz.

* * *

Joseph Albert & Sons, manufacturers of paper boxes, have been chartered under the laws of New York State, with a capital stock of $10,000.

* * *

Acorn Mill Supply Company, Inc., of 527 West 29th street, New York, has filed notice of an increase in capitalization from $20,000 to $120,000.

* * *

John Ragonetti, proprietor of the Colonial Paper Company, dealers in papermakers supplies, of 50 Ross street, Brooklyn, N. Y., announces that Antonio Gatto has severed his connection with the organization.

* * *

V. F. Gransden, sales manager of the Southern Kraft Corporation, with offices at 220 East 42nd street, New York, announces that E. J. (Jack) Rose, formerly with the Union Bag and Paper Corporation, has joined the former organization.

* * *

George W. Oliphant, of Castle & Overton, has been re-elected president of the Association of American Wood Pulp Importers; Orvar Hylin, of Lagerloef Trading Company, vice-president; William H. Anders, of Perkins Goodwin Company, treasurer; Arthur J. Fox, of Castle & Overton, secretary. Directors include the foregoing and Orval A. Wales. Howard E. Atterbury has been named national councillor and Frank C. Overton, alternate national councillor.

* * *

There was an excellent attendance at the regular weekly meeting and luncheon of the New York Division of the Salesmen's Association of the Paper Industry last Monday at George's Restaurant. Endicott Rantoul, vice-president of the association, occupied the chair. The guest speaker was M. J. Sutliff, of the Literary Guild, who gave an instructive and interesting talk on the paper problems of the book publisher. Mr. Sutliff's address was followed by a spirited discussion, in which many of those present took part.

Secures Control of Star Paper Mill

WASHINGTON, D. C., January 21, 1931.—Finland's largest paper manufacturing concern the Kymmene Aktiebolag has secured control of the Star Paper Mill Company, Ltd., Feniscowles, Lancashire, England, according to a report to the Department of Commerce.

It is reported that the object of the Finnish company is to better dispose of its surplus raw materials, chemical pulp and groundwood, particularly as improvements and enlargements in the local mills have made such surplus production considerably larger than heretofore. Original plans called for the installation of two or three new paper machines at the Kymmene's Voikka mills, but with the intervention of bad times the company decided that rather than spend millions in the installation of paper machines in its own mills, it would prove more profitable to take the step mentioned.

Embargo Ordered on Russian Pulpwood

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., February 10, 1931.—Under an order signed by the Secretary of the Treasury pulpwood coming from certain parts of Russia imported into the United States will have to be proved by the importer not to have been produced by convict labor. In a notice to collectors of customs the Secretary says:

"Upon the evidence which has been presented to me, I have ascertained and hereby find, in pursuance of Treasury Decision 44385, of November 24, 1930, that convict labor is used in the production of lumber and pulpwood in the following localities in European Russia:

"Kola Peninsula (including Murman Coast)

"Karelian Autonomous S.S.R.

"Northern Area.

"Zyryan (Komi) Autonomous Area.

"Therefore, on and after the date of the publication of this finding, Collectors of Customs will require compliance with the regulations published as Treasury Decision 44385 upon the importation of lumber or pulpwood originating in the localities specified above, or articles manufactured or produced in other localities from such lumber or pulpwood."

Richard Gray Sails for Russia

[FROM OUR REGULAR CORRESPONDENT]

WATERTOWN, N. Y., January 31, 1931—Announcement was made this week that Richard Gray, chief engineer of the Bagley & Sewall Company, had sailed for Belahkna, Russia, where he will supervise the installation of another large paper machine in the mills of the Volga Paper Company. He expects to take up his new duties late in February and will be assisted by a number of skilled mechanics who accompanied him on his recent trip to that country. Mr. Gray returned from his first voyage to Russia last October, after having spent about a year in placing in position the first large paper machine contracted for by the Russian government. The latest machine produced here is similar to the 234 inch machine recently installed in the Volga mills and it was shipped to Russia about a month ago. Officials of the local company claim that about a year will be needed to install the new machine and it was said that the foundation is ready, while the mechanics and the Russian help are now better acquainted with their duties.

Imperial Wall Paper Expansion

[FROM OUR REGULAR CORRESPONDENT]

PLATTSBURG, N. Y., February 7, 1931.—A new warehouse is being completed at the plant of the Imperial Wall Paper Company which will allow an increase in the production. The working force is also being enlarged with the taking on of about twenty-five printers and color mixers while the equipment of a subsidiary is also being installed in the plant here. Four machines are being transported here from the Hackensack, N. J., plant, which has been abandoned, and the remainder of the equipment is to be installed at the Glens Falls branch. The installation of the new machinery here will necessitate a large increase in the working force besides allowing the doubling of output and plans are said to call for day and night schedules in virtually all departments.

Annual Paper Banquet Will Be Unique Event

A delightful surprise is foreshadowed for the Annual Banquet of the American Paper and Pulp Association, which takes place on the night of February 19 at the Hotel Pennsylvania, New York. Of course there will be a bounteous repast and one of the best after dinner speakers in the country.

It is hinted that the occasion will prove worthy of the description, "A Gala Night Under the Stars," or at least "A North Woods Fantasy." The unique setting, the program and general atmosphere, should banish gloom or trouble and furnish a fitting cap-stone of optimism to the constructive sessions of the preceding day.

Boston Paper Trade Happenings

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., February 9, 1931—A large delegation of Boston paper merchants will attend the convention of the National Paper Trade Association in New York next week, when it is expected that the presidency will come back to Boston.

The Arnold-Roberts Company is stocking Parchmentone, "a new triumph in coated papers," made by the A. M. Collins Manufacturing Company, Philadelphia. This paper has a vellum background tint and is made in five spirited colors. The Arnold-Roberts Company is also stocking another new line, Woodbine Duplex Enamel, in six color combinations.

John Carter & Co., Inc., are distributing a new sample book of the McLaurin-Jones gummed papers, made at Brookfield, Mass.

"Paper from Wells" is the title of a folder issued by Percy D. Wells, on which is an illustration of a case of "Wellsworth Coated" being lifted from a well by the old-fashioned sweep.

A. M. Orme, of Batten, Barton, Durstine & Osborne, Inc., spoke on "Marketing" at a sales meeting held by Carter, Rice & Co., Corp. on Saturday. Mr. Orme related methods of his company and pains that they took to ascertain the buying power of the United States as a whole and by states and counties. An important thing he stressed, which agreed more or less with the experience of Carter, Rice & Co., was that the larger percentage of gross business is derived from a relatively small number of ledger accounts. The actual percentage is about 80 per cent of the gross business coming from 20 per cent of the total ledger accounts. William N. Stetson, Jr., president of Storrs & Bement Company, gave a talk at a senior sales meeting at the office of the company Friday evening.

Henry L. Goodman and his associate, Robert A. Ford, returned last week from a few days' visit to the Royal Card and Paper Company, New York City, whom they represent. Messrs. Goodman and Ford looked over the new lines of box covering and lining papers, of which the concern makes a very large quantity, and also the new machinery which the company has recently installed.

Joseph Goodman, treasurer of the Globe Paper Company, is at the Beth-Israel Hospital with a broken hip, caused by slipping on the ice in front of 10 High street recently. It is stated that it will be necessary for him to be at the hospital from three to six months.

O. L. Tracy, of the Nashua Gummed and Coated Paper Company, and T. R. Sullivan, of the Dennison Manufacturing Company, were elected directors at the first meeting of a New England chapter of the National Office Management Association, recently formed, at the University Club. The association is eleven years old. The meeting was attended by a large number of executives.

Arthur C. Hall, treasurer of John Carter & Co., Inc., has returned from a five weeks' trip to Florida, motoring about 4,600 miles. He was accompanied by Mrs. Hall.

N. F. Davis, of the Davis Paper Company, West Hopkinton, N. H., passed the week-end in Boston with his family.

W. R. Ingersoll, of the John Collins Company; W. G. Shortess, of the Federal Paper Board Company, Bogota, N. J.; James A. Mead, of the Powers Paper Company, Springfield, Mass.; and George W. Wheelwright, of the George W. Wheelwright Paper Company, North Leominster and Wheelwright, Mass., recently called on the trade.

Boston Paper Market Conditions

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., February 9, 1931—The wholesale paper market here is holding its own, with improvement noted in some quarters. An average amount of business has been put through in fine papers and with some dealers there has been a fairly good increase in the volume of sales. A representative of a large and well known manufacturer says that January was a good month in writing and other fine papers and that prospects for February are favorable. A manufacturer of bond paper says that January was the best month with his company for three years. A large wholesaler notes that business with his house has been spasmodic since the first of the year.

A fine paper dealer says that business is no worse than it has been and that inquiries are increasing in volume, but complains very emphatically concerning what he regards as extremely unfair competition. He says, "the order-takers in the business are as crazy as ever and the sooner the paper trade has brains enough to have salesmen instead of order-takers, the sooner the paper trade will be in better condition." Wrapping paper has been moving in fair amounts. Specialties are in more demand. The representative of a glassine manufacturer who has been travelling in the trade during the last week states that there is a pretty fair business.

More inquiry and more actual business has developed in the box board industry in a portion of the trade, although in some cases the demand has declined. There is still more or less marking time. Prices are steady. A stronger feeling has developed in both waste paper and rags, with an upward tendency in prices. The improved sentiment has not materialized in actual sales, but the opinion is expressed that some movement will take place and at higher prices than prevail at present.

R. J. Cullen Heads Continental

The bag manufacturing facilities of Continental Paper and Bag Corporation, a subsidiary of International Paper Company, have now largely been moved to the Southern United States, adjacent to mills of Southern Kraft Corporation, another subsidiary of International Paper Company.

R. J. Cullen, president of Southern Kraft Corporation, has been elected president of Continental Paper and Bag Corporation. In view of the location of Continental's two new bag factories at the Bastrop, Louisiana, and Mobile, Alabama, mills of Southern Kraft Corporation, this change will permit a closer coordination both in manufacture and in service to the trade. These two bag factories have a combined capacity of 35,000,000 bags per day.

H. A. Sheesley, who has been vice president and general manager of both George and Sherrard Paper Company and Continental Paper and Bag Corporation will continue as vice president and general manager of George and Sherrard Paper Company and will devote his time exclusively to that company, giving special attention to expansion of its sales, because of the rapid growth of the company and its possibilities for further large expansion in the manufacture of paper cement sacks and allied products.

Wilfred Barnes Dead

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., February 9, 1931—Wilfred Barnes, formerly in the paper manufacturing business, but later a general engineer engaged in finding locations for large manufacturing plants, died recently at his residence, 30 Goss avenue, Melrose. Mr. Barnes was 81. He was a native of Portland, Me., and was graduated from Cornell with the class of '73. Later he took a course in chemistry at the Massachusetts Institute of Technology. He had been retired from active business for the last nine years and his residence had been in Melrose for the last thirty years. His wife, who was Maria Whiton, of Melrose, two daughters and two sons are living.

Spruce Falls Makes Good Record

The Spruce Falls Power and Paper Company, Ltd., operated three of the four 234-inch news print machines installed in their Kapuskasing mill, during the month of January, with an average daily output slightly in excess of 410 tons of finished news print. This establishes the capacity production of their four machine mill, at a daily average output of 547 tons of finished news print.

Union Screen Plate Company

Fitchburg, Mass., U. S. A. Lennoxville, P. Q., Canada

UNION BRONZE

SCREEN PLATES FOR FLAT SCREENS

6 SLOTS—5 SLOTS—4½ SLOTS—4 SLOTS—PER INCH

Old Plates Reclosed and Re-cut to Accurate Gauge

Rolled Phosphor Bronze and Copper Plates for Rotary Screens

Sole Manufacturers of the Union Witham Screen Plate Vat and Fastener

87 YEARS EXPERIENCE

In Making

Felts for Paper Manufacturers certainly recommends our ability to satisfactorily serve your requirements.

OUR **TRIUNE** AND

MULTIPLE PLY

DRYER FELTS

English Weave—Fine Face Felt in Three, Four, Five and Six Ply—60" to 214" in width—insure large production. Absolutely no felt marks in paper.

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Established 1844

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1864 1931

"EXCELSIOR" FELTS

for every grade of

PULP AND PAPER

We continue to maintain at the top the quality of Excelsior Felts, as we have done since we, as pioneers, made the first endless paper machine felts manufactured in America.

Seamless felts for fast running.
Satin Style felts for finish.
Special felts to meet every condition.
Send us your felt problems.

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BULKLEY, DUNTON & COMPANY

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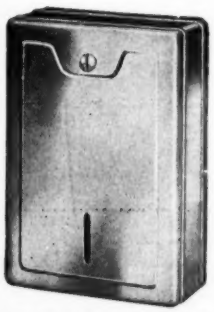

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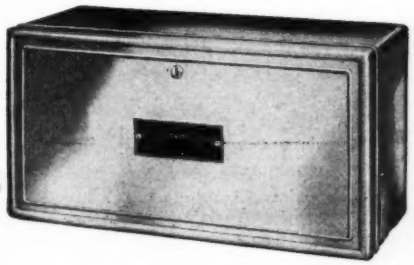


GRIFFITH-HOPE CO., West Allis, Wisc.

IMPORTS OF PAPER AND PAPER STOCK

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING FEBRUARY 7, 1931
SUMMARY

Cigarette paper	1886 cs.
Wall paper	35 bls., 25 cs.
Paper hangings	5 bls., 2 cs.
News print	4528 rolls
Printing paper	141 bls., 81 cs.
Wrapping paper	36 bdls., 6 bls., 3 cs.
Sulphate paper	197 rolls
Packing paper	16 cs.
Tissue paper	1 cs.
Gauze tissue paper	4 cs.
Decalcomania paper	45 cs.
Filter paper	15 cs.
Shelf paper	3 cs.
Colored paper	1 cs.
Drawing paper	2 cs.
Parchment paper	28 bls.
Photo paper	6 cs.
Metal coated paper	21 cs.
Surface coated paper	1 cs.
Pigment paper	1 cs.
Litmus paper	1 cs.
Writing paper	1 cs.
Stencil paper and ink	17 cs.
Bristol boards	2 cs.
Miscellaneous paper	35 rolls, 5 pkgs., 6 bls., 134 cs.

CIGARETTE PAPER

American Tobacco Co., Indep. Hall, Bordeaux, 350 cs.

De Manduit Paper Corp., Indep. Hall, St. Nazaire, 955 cs.; Waukegan, Havre, 342 cs.

Champagne Paper Corp., Waukegan, Havre, 120 cs.

Brown & Williamson Tobacco Corp., Aquitania, Southampton, 7 cs.

P. J. Schwietzer, Pres. Polk, Marseilles 92 cs.

WALL PAPER

W. H. S. Lloyd & Co., Maryland, London, 1 ble.

R. E. Thibaut, Inc., Maryland, London, 17 bls.; Rotterdam, Rotterdam, 12 cs.

R. F. Downing & Co., Aquitania, Southampton, 6 cs.

Globe Shipping Co., Bremen, Bremen, 1 ble.

Kensington Wallpaper Co., Clyde Maru, Hamburg, 1 ble.

Irving Trust Co., New York, Hamburg, 6 cs.

F. A. Binder, New York, Hamburg, 8 bls.

F. J. Emmerich, New York, Hamburg, 5 bls.

Globe Shipping Co., New York, Hamburg, 2 bls., 1 cs.

PAPER HANGINGS

A. C. Dodman Jr. Inc., Alaunia, Liverpool, 3 bls.

Whiting & Patterson Co. Inc., Aurania, Southampton, 1 ble., 1 cs.

W. H. S. Lloyd & Co., Aurania, Southampton, 1 ble., 1 cs.

NEWS PRINT

Jay Madden Corp., City of Fairbury, Kotka, 648 rolls; New York, Hamburg, 77 rolls.

———, New York, Hamburg, 193 rolls.

W. H. Bell, Markland Liverpool, N. S., 3343 rolls.

———, Stavangerfjord, Oslo, 44 bls., 267 rolls.

PRINTING PAPER

International F'd'g. Co., Rotterdam, Rotterdam, 9 cs.

P. C. Zuhlke, Westernland, Antwerp, 37 cs.

T. N. Fairbanks Co., Aquitania, Southampton, 10 cs.

Keller Dorian Paper Co., Pres. Polk, Marseilles, 8 cs.

Armour & Co., New York, Hamburg, 69 bls.

Perkins Goodwin & Co., New York, Hamburg, 72 bls.

Aladdin Dry Stencil Corp., New York, Hamburg, 8 cs.

E. Dietzgen & Co., New York, Hamburg, 9 cs.

WRAPPING PAPER

R. Wilson Paper Corp., Rotterdam, Rotterdam, 36 bdls.

Sylvania Industrial Corp., Westernland, Antwerp, 3 cs., 6 bls.

SULPHATE PAPER

Insight Paper Co., Stavangerfjord, Frederickstad, 197 rolls.

PACKING PAPER

F. C. Strype, New York, Hamburg, 16 cs.

TISSUE PAPER

Meadows Wye & Co., Alaunia, Liverpool, 1 cs.

GAUZE TISSUE PAPER

B. F. Drakenfeld & Co., Alaunia, Liverpool, 4 cs.

DECALCOMANIA PAPER

B. F. Drakenfeld & Co., Alaunia, Liverpool, 16 cs. (duplex); 5 cs. (simplex).

Phoenix Shipping Co., Bremen, Bremen, 3 cs.

C. W. Sellers, Bremen, Bremen, 2 cs.; New York, Hamburg, 19 cs.

FILTER PAPER

H. Reeve Angel & Co. Inc., Aurania, Southampton, 15 cs.

SHELF PAPER

Kaplan Bros., Bremen, Bremen, 3 cs.

COLORED PAPER

J. Beckhard & Co., Bremen, Bremen, 1 cs.

DRAWING PAPER

J. Henschel & Co. Inc., New York, Hamburg, 2 cs.

PARCHMENT PAPER

Walker Goulard Plehn, New York, Hamburg, 28 bls.

PHOTO PAPER

Agfa Ansco Corp., Aquitania, Southampton, 6 cs.

METAL COATED PAPER

K. Pauli Co., New York Hamburg, 11 cs.

Globe Shipping Co., New York, Hamburg, 10 cs.

SURFACE COATED PAPER

Globe Shipping Co., New York, Hamburg, 1 cs.

PIGMENT PAPER

Draeger Shipping Co., New York, Hamburg, 1 cs.

LITMUS PAPER

Pfalz & Bauer, Clyde Maru, Hamburg, 1 cs.

WRITING PAPER

Globe Shipping Co., Aurania, Southampton, 1 cs.

STENCIL PAPER AND INK

Arlac Dry Stencil Co., New York Hamburg, 17 cs.

BRISTOL BOARDS

———, Aurania, Southampton, 2 cs.

MISCELLANEOUS PAPER

C. Steiner, Rotterdam, Rotterdam, 35 rolls, 6 bls.

Steiner Paper Corp., Rotterdam, Rotterdam, 47 cs.

J. Beckhard Co., Rotterdam, Rotterdam, 18 cs.

Keuffel & Esser Co., Rotterdam, Rotterdam, 12 cs.

New York Paper Co., Rotterdam, Rotterdam, 10 cs.

P. J. Schweitzer, Ile de France, Havre, 2 cs.

The Arles Co., Ile de France, Havre, 3 cs.

Canson & Montgolfier, Ile de France, Havre, 7 cs.

W. H. S. Lloyd & Co., Ile de France, Havre, 5 pkgs.

Keller Dorian Paper Co., Ile de France, Havre, 24 cs.

Hoboken Trust Co., Pres. Polk, Genoa, 11 cs.

RAGS, BAGGINGS, ETC.

E. J. Keller Co., Inc., Indep. Hall, ———, 127 bls. rags.

G. Schuster, Oriente, Havana, 20 bls rags.

S. Birkenstein & Son, Aurania, Southampton; 144 bls. paper stock.

Banco Com'l Italiane Trust Co., L. A. Christensen, Savona, 477 bls. bagging.

———, L. A. Christensen, Savona, 19 bls. bagging.

Banco Com'l Italiene Trust Co., L. A. Christenson, Savona, 477 bls. bagging.

———, Lucia C., Trieste, 49 bls. rags.

E. J. Keller Co. Inc., Cabo Santa Maria, ———, 137 bls. bagging.

Darmstadt, Scott & Courtney, Cabo Santa Maria, Barcelona, 140 bls. bagging.

Irving Trust Co., New York, Hamburg, 79 bls. cotton nappers.

E. J. Keller Co. Inc., Saco, ———, 25 bls. rags.

OLD ROPE

Chemical Bank & Trust Co., Rotterdam, Rotterdam, 102 coils.

Irving Trust Co., Rotterdam, Rotterdam, 79 coils.

Brown Bros. Harriman & Co., Aurania, Southampton, 104 coils.

CASEIN

Kalbfleisch Corp., Western World, B. Ayres, 417 bags.

2nd, National Bank of Boston, Western World, B. Ayres, 50 bags.

T. M. Duche & Son, Western World, B. Ayres, 834 bags.

WOOD PULP BOARDS

Lagerloef Trading Co., City of Fairbury, Kotka, 101 bls., 14 tons.

WOOD PULP

Lagerloef Trading Co., City of Fairbury, Rauma, 736 bls. sulphate, 122 tons; 940 bls. sulphite, 157 tons.

———, City of Fairbury, Tolkis, 845 bls. sulphite, 191 tons.

E. M. Sergeant & Co., Stravangerfjord, Oslo, 150 bls. chemical pulp.

———, Stavangerfjord, Oslo, 500 bls. chemical pulp.

Brown Bros. Harriman & Co., Clyde Maru, Hamburg, 150 bls. wood pulp, 34 tons; New York, Hamburg, 80 bls. wood pulp, 16 tons.

Guaranty Trust Co., New York, Hamburg, 154 bls. sulphite, 31 tons.

Castle & Overton, Inc., New York, Hamburg, 415 bls. wood pulp, 83 tons.

PHILADELPHIA IMPORTS

WEEK ENDING FEBRUARY 7, 1931

International Trust Co., L. A. Christensen, Marseilles, 62 rolls old rope.

F. Weber & Co., Cabo Santa Maria, Genoa, 16 cs. paper.

E. J. Keller Co., Inc., Ambridge, ———, 231 coils old rope; Binnendyk, ———, 104 bls. rags

Bulkley Dunton & Co., Orla, ———, 2250 bls. wood pulp; Arna, ———, 750 bls. wood pulp; Bore, ———, 4125 bls. wood pulp.

Russell McCandless, Toledo, Oslo, 240 bls. unbleached sulphite.

BOSTON IMPORTS

WEEK ENDING FEBRUARY 7, 1931

Lagerloef Trading Co., City of Fairbury, Kotka, 692 bls. sulphite, 108 tons.

———, City of Fairbury, Kotka, 4836 bls. sulphite, 808 tons.

———, City of Fairbury, Kotka, 1907 bls. sulphate, 413 tons.

———, City of Fairbury, Tolkis, 810 bls. sulphite, 164 tons.

Brown Bros. Harriman & Co., Maryland, London, 100 coils old rope.

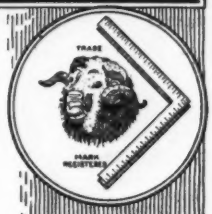
Atkinson Haserick Co., Pres. Polk, Genoa, 4 cs. paper.

Bulkley Dunton & Co., Bore, ———, 2200 bls.

(Continued on page 54)

3 FEATURES of our "TOP FELTS for BOARD MACHINES"

A Trial Felt for Your Machines Will Prove These Facts.



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a clean cut ~ a sure cut ~ a shear cut ~

— *dust-free rolls?*

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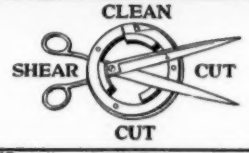
LANGSTON
Slitters & Rewinders



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MACHINE FINISHED BOOK
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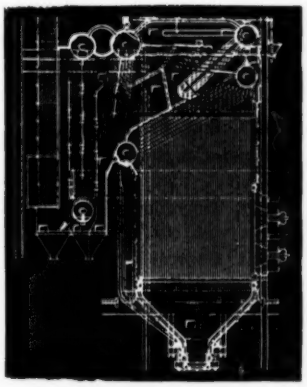
503 Market St., San Francisco, Cal.
Sixth and Chestnut Sts.. Philadelphia, Pa.



BADENHAUSEN STEAM GENERATING UNITS

installed in some of the largest pulp and paper mills in the United States and Canada

MAXIMUM STEAM
AT
HIGHEST EFFICIENCY
WITH
LEAST CAPITAL INVESTMENT and OPERATING COSTS

Result:—Enormous savings in cost of pulp and paper produced.

BADENHAUSEN CORPORATION
General Offices and Works
CORNWELLS HEIGHTS (PHILA.), PA.

Imports of Paper and Paper Stock

(Continued from page 52)

wood pulp; Cronshagen, ———, 11175 bls. wood pulp; Oxelosund, ———, 600 bls. wood pulp.

BALTIMORE IMPORTS

WEEK ENDING FEBRUARY 7, 1931

Russell McCandless, Malmen, Stockholm, 300 bls. unbleached sulphite.

Bulkley Dunton & Co., Boren, ———, 3250 bls. wood pulp; Wanja, ———, 4250 bls. wood pulp: Consul Corfitzen, ———, 4925 bls. wood pulp; Innoko, ———, 220 bls. wood pulp.

PORTLAND IMPORTS

WEEK ENDING FEBRUARY 7, 1931

Lagerloef Trading Co., City of Fairbury, Rauma, 1524 bls. mechanical pulp; 6735 bls. sulphite; City of Fairbury, Kotka, 340 bls. sulphate, 56 tons; 1360 bls. sulphite, 230 tons.

———, City of Fairbury, Kotka, 279 bls. sulphite, 380 tons.

———, City of Fairbury, Kotka, 1496 bls. sulphate, 259 tons.

———, City of Fairbury, Tolkis, 2187 bls. sulphate, 443 tons.

Lagerloef Trading Co., City of Fairbury, Kotka, 1016 bls. mechanical pulp, 203 tons.

HOUSTON IMPORTS

WEEK ENDING FEBRUARY 7, 1931

Banco Com'l Italiane Trust Co., Tergestea Venice, 109 bls. bagging.

NEW ORLEANS IMPORTS

WEEK ENDING FEBRUARY 7, 1931

Hibernia Bank & Trust Co., Tergestea Trieste, 84 bls. rags.

Carter, Rice & Co.'s Pacific Coast Branches

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., January 26, 1931—Charles A. Esty, managing director of Carter, Rice & Co. Corp., whose main offices is in Boston, makes the following announcement concerning changes relative to their Pacific Coast branches:

"On January 26, headquarters for these branches will be established at San Francisco, from where affairs of the company on the Pacific Coast will be administered. This company is maintaining fully equipped warehouses at San Francisco, Portland and Seattle, composing its Western organization, distributing complete lines of fine papers, and representing many well known manufacturers.

"Management of all the Coast Divisions will continue to be under the direction of Charles H. Beckwith, who has been for the past four years at the Seattle office of the company. Mr. Beckwith is to take up his residence at San Francisco about February 1, with offices at the company's new location, 240 Howard street.

"Division managers will continue in immediate charge of the respective branches. E. E. Embree, well known in the paper trade of the Northwest for a good many years and for the past five years the company's sales manager at Seattle, will direct that division. James W. Murphy will manage the Portland Division. He has been for several years Oregon sales manager for the company. The San Francisco Division of Carter, Rice & Co. continues under the management of Allen M. Olinger, who for a number of years has served in this capacity."

The following is the text of a printed announcement sent out by Mr. Beckwith to the Pacific Coast printing trade:

Mr. Hubert L Carter, of Boston, president of the company, is to be on the Coast early in February and anticipates distinct advantages from the changes—both to the trade which Carter, Rice & Company serves, and to the manufacturers whom the company represents in the West.

Paper Mill Employment

Decrease in employment and payrolls in the paper and pulp mills of the country in December compared with November was very small according to the Bureau of Labor Statistics, Department of Labor.

Reports were received from 208 paper and pulp mills which gave their November employment at 53,742 decreasing in December to 53,754, a decrease of less than one tenth of one per cent. Weekly payrolls in these same mills also decreased from $1,334,555 in November to $1,323,454 in December a decrease of 0.8 per cent.

The Bureau also received reports from 310 paper box factories which gave their November employment at 26,806 decreasing in December to 25,876 a decrease of 3.5 per cent. Weekly payrolls in these identical plants also decreased from $598,777, in November to $563,656 in December a decrease of 5.9 per cent.

Research on Lithographic Papers Discussed

A joint meeting of the Advisory Committee to the Bureau of Standards on Standardization of Lithographic Papers and the paper section of the bureau was held at the bureau December 8. This committee was appointed by the Lithographic Technical Foundation, which requested research on this subject and which is cooperating in it. The meeting was held for discussion of the results so far obtained and for planning the further work.

Considerable waste is said to be caused in lithographic printing processes owing to lack of knowledge of the properties that papers must possess to give the best results, accordingly the research is an attempt to obtain such information so that the paper requirements can be definitely formulated.

The committee considered the results of a survey of thirty-one lithographic printing plants, made by the bureau by means of personal inspections in the plants and consultations with the operatives, which showed that misregister was the principal difficulty being experienced, although there was some trouble with lack of clearness of prints caused presumably by picking or linting of the paper, or chemical reactions caused by some of the paper constitutents. In view of these results it was agreed that causes of misregister should receive first consideration and that clearness of prints would be taken up later. Some progress already made in study of causes of misregister, which is being carried on in a cooperating printing plant, was reported to the committee which assisted in planning details for the further work contemplated. This study involves a consideration of the effect of moisture, ink and pressure relative to distortion of paper and consequent misregister.

The work planned relative to clearness of prints included laboratory and plant studies of the interrelation of printing inks and such paper properties as smoothness, porosity, tendensy to pick, kind of sizing materials, and acidity of alkalinity.

In addition to the bureau representatives, the meeting was attended by the following:

R. F. Reed, Director, Department of Lithographic Research, University of Cincinnati, Chairman, Advisory Committee.

Alfred B. Rode, President, Lithographic Technical Foundation, New York, N. Y.

W. R. Maull, Vice-President, Dill and Collins, Philadelphia, Pa.

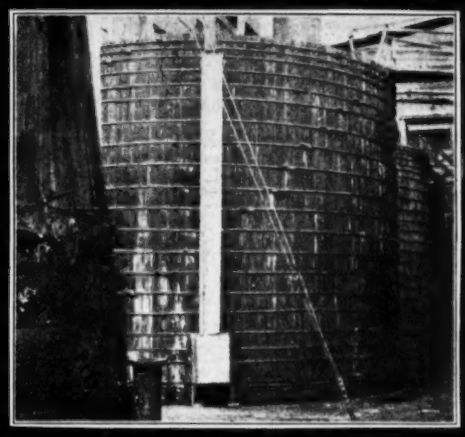
Miss R. M. Cobb, Chemist, Lowe Paper Company, Ridgefield, N. J.

B. L. Wehmhoff, Technical Director, Government Printing Office, Washington, D. C.

Dr. Hugo Stockmayer, Chief Chemist, General Printing Ink Corp., Rutherford, N. J.

Wm. H. Merten, President, Strobridge Lithographing Company, Cincinnati, Ohio.

E. A. Sprong, Production Manager, American Lithograph Company, Buffalo, N. Y.



for SIXTY YEARS

we have been building—

WOOD TANKS

Sulphite Liquor Tanks, double-headed, of 6" Long Leaf Yellow Pine, built for the Champion Fiber Company, Canton, N. C. These tanks are 28' diameter with 20' staves.

Wood tanks for paper mills, stuff chests, acid storage tanks, blow pits, beater tubs, alum tanks, rubber-lined muriatic acid storage tanks made of Red Gulf Cypress.

Let us quote on your requirements.

The Hauser-Stander Tank Co.
Cincinnati Ohio

Sulphur

A FIRST REQUISITE

in

Paper Making

Large Production
Ample Reserves
Prompt Deliveries
Purity 99½%

TEXAS GULF SULPHUR CO
(Incorporated)
75 East 45th Street, New York City
Mine: Gulf, Matagorda County, Texas

THE CLARK-AIKEN CO.

Successors to
H. C. Clark & Son Machine Co.

PAPER MILL MACHINERY

LEE, MASS.

Revolving Paper Cutters—Rag Cutters—Cylinder Paper Machines—Washing and Beating Engines—Chilled Iron and Paper Calenders—Fan and Stuff Pumps—Engine Roll Bars and Bed Plates—
Cylinder Molds—Marshall Drives—Slitters and Rewinders—Reels—Dryers with Improved Packing Boxes—Wet Machines—Gun Metal and Rubber Rolls—Rolls Reground.

The HARRINGTON & KING PERFORATING CO.

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Screens of All Metals

PERFORATED METALS

For use in Pulp and Paper Mills

FAIRBANKS

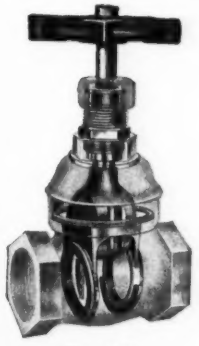

Fig. 0201

Renewable Seat Ring Gate Valves

are built to give service under the most severe conditions.

The renewable features have been perfected, are simple and may be relied upon as being entirely effective.

Renewals can be easily and quickly made, when necessary, without taking the valve from the pipe line.

Screw End and Flange End types.
Made in Bronze or of metals to meet special conditions.
Good for 150 lb. Steam Working Pressure

Write for Descriptive Bulletin and No. 20 Valve Catalog.

THE FAIRBANKS COMPANY
BOSTON NEW YORK PITTSBURGH
Distribution in All Principal Cities.

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, February 11, 1931

Trading in the local paper market was fairly active during the past week. The various grades of paper were mostly in seasonal request. Sales forces of the leading paper organizations are anticipating a good Spring trade and the outlook for the future is promising. Prices are generally steadier and reports of shading are less frequent.

The news print situation is practically unchanged. Production is being maintained in sufficient volume to take care of current requirements. Supplies are moving into consumption in fair volume. While strenuous efforts are being made to stabilize the industry, the outlook for the future still appear uncertain. No further price changes have been recorded of late.

Production of box board is being maintained at from 65 to 70 per cent of capacity, and the output is practically keyed to the prevailing demand. The fine paper market contines to exhibit a steady trend. Tissues are going forward in normal volume for the time of year. Some improvement was noticed in the coarse paper market.

Mechanical Pulp

While demand for both domestic and imported ground wood is only moderately active, offerings are somewhat limited and the industry is in a sound statistical position. The contract movement is fairly satisfactory. There are a number of inquiries around for future needs and prices are holding to former levels, in most instances.

Chemical Pulp

Paper mill interest in the chemical pulp market is more encouraging, judging from the numerous inquiries being received. Shipments against contract are going forward in normal volume. Producers of some grades of chemical pulp are well booked ahead, although other grades have been rather quiet for some time past. Prices remain unchanged.

Old Rope and Bagging

The old rope market was dull during the past week. Demand for both foreign and domestic old manila rope was mostly along routine lines. Little interest was evinced in small mixed rope. Prices are holding up fairly well. The bagging market was moderately active. Demand for gunny and roofing bagging was fairly presistent. New burlap cuttings were in excellent request.

Rags

Conditions in the domestic rag market are gradually improving. Demand for cotton cuttings was stronger. Roofing rags were particularly firm, quotations advancing about $2 per ton. Mixed rags continue quiet. The imported rag market is exhibiting a stronger undertone. There is a better demand for foreign roofing grades. Dark cottons are decidedly firmer.

Waste Paper

The lower grades of paper stock are arousing more interest from the board mills. No. 1 mixed paper is in heavy demand and sales have been reported at 22½ cents per pound. Strictly folded news is also in persistent request. The better grades of waste paper continue steady. Soft white shavings are in a sound position. While book stock is quiet, offerings are limited.

Twine

Most of the business transacted in the local twine market was along routine lines. Demand for the various grades is mainly seasonal. There are a fair number of inquiries around for future needs. Prices are holding to formerly quoted levels, in most instances, although there have been reports of concessions on extra large orders.

Blake, Moffitt & Towne to Distribute Howard Lines

Of interest to Pacific Coast paper buyers is the announcement made by the Howard Paper Company, Urbana, Ohio, of the appointment of Blake, Moffitt & Towne as sole distributors of the Howard line on the Pacific Coast, to take effect February 1. This is in line with the company's policy of extending its markets so as to include every section of the country for the distribution of Howard bond, Howard ledger, and Howard mimeograph.

Blake, Moffitt & Towne have been active in the distribution of quality papers on the Pacific Coast for 75 years. The seventeen divisions that comprise the Blake, Moffitt & Towne organization are located at San Francisco, Seattle, Oakland, Portland, Sacramento, Long Beach, Fresno, San Jose, San Diego, Tucson, Phoenix, Santa Rosa, Boise, Medford, Salem and Tacoma Paper and Stationery Company.

Howard Paper Company has enjoyed its full measure of prosperity as a pioneer in the business of paper making. Its Urbana plant is situated so that it can take every advantage of its natural paper making resources. A number of Artesian wells are located on its properties which enables the Howard Company to settle the question of pure water supply without depending upon artificial methods.

With the bringing together of two pioneers, both well-known in the paper field, with many years experience in catering to the requirements of paper buyers, this successful combination is bound to react to the advantage of all concerned. A complete stock of Howard bond is available at every one of the Blake, Moffitt & Towne seventeen Divisions

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Sell Interest in Saranac Pulp & Paper Co.

PLATTSBURG, N. Y., February 9, 1931.—H. P. G. Norstrand who for the past seven years was president and general manager of the Saranac Pulp and Paper Company of Plattsburg, and Leif B. Norstrand who was secretary, have sold their interests in the company and are now devoting their entire time to the Norstrand Manufacturing Corporation also of Plattsburg.

This latter corporation was organized in 1927 and manufactures a line of moulded ground wood products. H. P. G. Norstrand is vice-president and Leif B. Norstrand is general manager of the Norstrand Manufacturing Corporation.

Transcello Paper Co. Doubles Capacity

J. E. Kiefer, president of the Transcello Paper Company, Milwaukee, Wis., states that the demand for Transcello paper has so greatly increased that it has been found necessary to install additional equipment to more than double the original capacity of the plant.

Arthur D. Little, Inc.

Chemists and Engineers to the Pulp and Paper Industry for over Forty Years

Laboratories and Experimental Mill

30 CHARLES RIVER ROAD, CAMBRIDGE, MASS.

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Consulting Engineers

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Consultation, reports, valuations, and complete designs and engineering supervision for the construction and equipment of

Pulp and Paper Mills and other Industrial Plants.
Steam and Hydro-electric Power Plants.
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INDUSTRIAL ENGINEER

Pulp and Paper Mills, Hydro-Electric and Steam Power Plants, Electrification Paper Mill Properties.

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CHICAGO, ILL.

20 plants to serve You

PAPER MAKERS CHEMICAL CORP.
Kalamazoo, Michigan

H. S. TAYLOR

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PULP, PAPER, AND FIBRE MILLS
HYDRO - ELECTRIC AND STEAM
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Jefferson St. Arcade, Dayton, O. — Guarantee Bldg., Montreal, P. Q.

Biggs 14-foot Diameter Welded Rotary Digester

Biggs Builds

Welded Vessels of Alloy Steel
Biggs Globe, Cylinder and Tumbling Digesters Welded or Riveted
Stationary Digesters
Penstocks

The **Biggs Boiler Works Co.**
AKRON, OHIO

BIGGS ROTARIES *for years of dependable cooking and bleaching...*

GIANT

RAGS — BURLAP
BAGGING — ROPE

JUTE BUTTS, MAGAZINES, CATALOGS OLD PAPERS, THREAD WASTE AND ALL GRADES OF RAGS CUT QUICKLY AND EFFICIENTLY WITH THE

TAYLOR, STILES & COMPANY GIANT REG. U.S. PAT. OFF. RIEGELSVILLE, N.J. U.S.A.

This is the GIANT 2A CUTTER WITH A CAPACITY OF 3000 lbs. PER HOUR
GIANT RAG CUTTERS HAVE CAPACITIES OF FROM 1 to 5 tons per hour.

THE STANDARD OF THE WORLD FOR 59 YEARS
TAYLOR, STILES & COMPANY
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SOLE AGENTS FOR EUROPE
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Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, February 11, 1931

BLANC FIXE.—The position of the blanc fixe market was practically unchanged. Demand for both the pulp and the powder was fairly active. The pulp is still quoted at from $42.50 to $45.00 per ton, while the powder is selling at from 3¾ cents to 4½ cents per pound, in barrels, at works.

BLEACHING POWDER.—Trading in the bleaching powder market was mostly along routine lines. The contract movement was about normal for the time of the year. Prices are generally holding to schedule. Bleaching powder is quoted at from $2.00 to $2.35 per 100 pounds, in drums, at works.

CASEIN.—The casein market was dull. Prices on Argentine grades declined. Domestic standard ground is quoted at 8½ cents and finely ground is selling at 12 cents per pound; while Argentine standard ground is selling at 10 cents and finely ground at 11 cents per pounds, all in bags, car lot quantities.

CAUSTIC SODA.— Conditions in the caustic soda market are fairly satisfactory. Demand has improved and prices are somewhat steadier. Solid Caustic soda is quoted at from $2.50 to $2.55, while the flake and the ground are selling at from $2.90 to $2.95 per 100 pounds, in large drums, at works.

CHINA CLAY.—Demand for china clay is fairly persistent. Contract shipments are moving in good volume. Prices generally remain unchanged. Imported china clay is quoted at from $13 to $21 per ton, while domestic paper making clay is still selling at from $8 to $13 per ton, at mine.

CHLORINE.—The chlorine market is displaying a strong undertone. The contract movement is gradually expanding. While a large volume of contract business had been booked at $1.75, producers are now asking $2.50 per 100 pounds, in tanks, or multi-unit cars, in ton lots, or over, at works.

ROSIN.—Some improvement was noticed in the rosin market. Prices are steadier. The grades of gum rosin used in the paper mills are now quoted at from $5.20 to $5.50 per 280 pounds, in barrels, at yards, while wood rosin is selling at $3.80 per 280 pounds, in car lots, or over, at works.

SALT CAKE.—The salt cake market was moderately active. Demand is seasonal and contract shipments are going forward in normal volume. Salt cake is still quoted at from $16 to $17; German salt cake at from $15.50 to $16, and chrome salt cake at from $14 to $15 per ton, in bulk, at works.

SODA ASH.—Steadiness prevails in the soda ash market. Supplies are going forward in a satisfactory manner. Prices are holding to the recently adopted schedule. Contract quotations on soda ash, in car lots, at works, per 100 pounds, are as follows: in bulk, $1.00; in bags, $1.15, and in barrels, $1.38.

STARCH.—The starch market was rather quiet during the past week. Shipments against contract were normal for the season. No further price changes have been reported of late. Special paper making starch is quoted at $3.12, in bags; and at $3.39 per 100 pounds, in barrels, at works.

SULPHATE OF ALUMINA.—Production of sulphate of alumina is being maintained in sufficient volume to take care of current requirements. Prices are holding to schedule. Commercial grades are quoted at from $1.25 to $1.40; and iron free at from $1.90 to $2.05 per 100 pounds, in barrels, at works.

SULPHUR.—The position of the sulphur market is sound. Prices are steady. Sulphur is quoted at $18 per long ton, on orders of 1,000 tons, or over, on yearly contracts; and at $20 per ton for any smaller quantity over that period. On spot and near by car loads the quotation is $21 per ton.

TALC.—Most of the business transacted in the talc market was along routine lines. Prices are holding to previously quoted levels, in most instances. Domestic talc is selling at from $16 to $18 per ton, in bulk; while imported talc is offered at from $18 to $22 per ton, in bags, ship side.

Market Quotations

Paper
(F. o. b. Mill)

Ledgers	11.00	@	38.00
Bonds	6.75	@	53.25
Writings—			
Extra Superfine	14.00	@	32.00
Superfine	14.00	@	32.00
Tub sized	10.00	@	15.00
Engine sized	6.75	@	11.00
Book, Cased—			
S. & S. C.	5.50	@	—
M. F.	5.25	@	—
Coated and Enamel	7.00	@	10.50
Lithograph	7.50	@	12.00
Tissues—Per Ream—			
White No. 1	.65	@	.67½
Anti-Tarnish M G only	.65	@	.70
Colored	.70	@	.90
White No. 2	.55	@	.57½
Kraft	.65	@	.70
Manila	.55	@	.57½
Kraft—			
No. 1 Domestic	4.25	@	5.30
No. 2 Domestic	3.00	@	3.75
Southern	3.00	@	3.75
Imported	6.00	@	7.00
Manila—			
No. 1 Jute	9.00	@	9.25
No. 2 Jute	7.75	@	8.50
No. 1 Wood	4.00	@	5.25
No. 2 Wood	3.50	@	4.00
Butchers	3.37½	@	—
Fibre Papers—			
No. 1 Fibre	4.25	@	5.50
No. 2 Fibre	4.00	@	4.75
Common Bogus	1.50	@	3.00
Screenings	2.00	@	3.00
Card Middles	4.00	@	5.00
Glassine—			
Bleached, basis 25 lbs., No. 1	.09¼	@	—
No. 2	.11¼	@	—
Bleached, basis 20 lbs.	.11¾	@	—
(Delivered New York)			
News, per ton—			
Rolls, contract	62.00	@	—
Rolls, spot	62.00	@	—
Sheets	67.00	@	—
Side Runs	47.00	@	52.00
Boards—per ton—			
News	32.50	@	35.00
Straw	40.00	@	45.00
Chip	30.00	@	32.00
Binders' Boards	65.00	@	70.00
Standard Test Jute Liner	40.00	@	42.00
Sgl. Mla. Lt. Chip. (F. o. b. Mill)	42.50	@	—
Wood Pulp Boards	70.00	@	80.00

Mechanical Pulp
(On Dock)

No. 1 Imported—			
Moist	28.00	@	32.00
Dry	30.00	@	34.00
(F. o. b. Mill)			
No. 1 Domestic	28.00	@	34.00

Chemical Pulp
(On Dock, Atlantic Ports)

Sulphite (Imported)—			
Bleached	3.00	@	4.25
Easy Bleaching	2.60	@	2.80
No. 1 strong unbleached	2.00	@	2.65
Mitscherlich unbleached	2.15	@	2.70
No. 2 strong unbleached	1.95	@	2.05
No. 1 Kraft	1.50	@	1.75
No. 2 Kraft	1.40	@	1.55
Sulphate—			
Bleached	3.00	@	3.50
(F. o. b. Pulp Mill)			
Sulphite (Domestic)—			
Bleached	2.40	@	4.75
Easy Bleaching Sulphite	2.55	@	2.75
News Sulphite	2.35	@	2.60
Mitscherlich	2.50	@	3.25
Kraft (Domestic)	1.60	@	2.75
Soda Bleached	2.75	@	2.90

Domestic Rags
New Rags
(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—			
New White, No. 1	8.00	@	8.50
New White, No. 2	7.00	@	7.25
Silesias No. 1	6.00	@	6.50
New Unbleached	8.00	@	8.50
New Blue Prints	5.00	@	5.50
New Soft Blacks	4.00	@	4.50
Blue Overall	6.00	@	6.25
Washables	3.75	@	4.00
Fancy	4.00	@	4.50
Mixed Khaki Cuttings	4.25	@	5.25
Pink Corset Cuttings	6.50	@	7.00
O. D. Khaki Cuttings	5.15	@	5.75
Men's Corduroy	3.00	@	3.50
New Mixed Blacks	3.00	@	3.25
Old Rags			
White, No. 1—Repacked	5.25	@	5.75
White, No. 1—Miscellaneous	4.25	@	4.75
White, No. 2—Repacked	3.00	@	3.50
White, No. 2—Miscellaneous	2.30	@	2.50
St. Soiled, White	1.50	@	1.75
Thirds and Blues—Repacked	2.25	@	2.50
Thirds and Blues—Miscellaneous	1.65	@	1.85
Black Stockings	3.25	@	3.75
Roofing Rags—			
Cloth Strippings	1.25	@	1.30
No. 1	1.25	@	1.30
No. 2	.90	@	1.00
No. 3	.70	@	.80
No. 4	.65	@	.70
No. 5A	.50	@	.60

Foreign Rags
New Rags

New Dark Cuttings	2.15	@	2.40
New Mixed Cuttings	2.25	@	2.50
New Light Silesias	5.75	@	6.25
Light Flannelettes	6.25	@	6.75
Unbleached Cuttings	7.50	@	8.00
New White Cuttings	7.25	@	7.75
New Light Oxfords	5.75	@	6.25
New Light Prints	4.25	@	4.75
Old Rags			
No. 1 White Linens	7.00	@	7.50
No. 2 White Linens	5.50	@	6.00
No. 3 White Linens	4.00	@	4.50
No. 4 White Linens	2.50	@	3.00
No. 1 White Cotton	5.00	@	5.50
No. 2 White Cotton	4.00	@	4.50
No. 3 White Cotton	2.75	@	3.75
No. 4 White Cotton	1.60	@	1.75
Extra Light Prints	2.50	@	2.75
Ord. Light Prints	2.10	@	2.25
Med. Light Prints	1.65	@	1.75
Dutch Blue Cottons	1.90	@	2.10
French Blue Linens	2.65	@	2.75
German Blue Linens	2.25	@	2.40
German Blue Cottons	1.75	@	1.85
Checks and Blues	1.60	@	1.75
Lindsay Garments	1.10	@	1.20
Dark Cottons	.80	@	.90
Old Shopperies	.75	@	.80
New Shopperies	.75	@	.80
French Blues	1.80	@	1.96

Old Rope and Bagging
(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—			
Foreign	1.65	@	1.80
Domestic	1.65	@	1.80
Wool Tares, light	1.30	@	1.40
Wool Tares, heavy	1.35	@	1.40
Bright Bagging	1.30	@	1.35
Small Mixed Rope	.90	@	1.00
Manila Rope—			
Foreign	2.50	@	2.60
Domestic	2.75	@	300
New Burlap Cut	2.25	@	2.50
Hessian Jute Threads—			
Foreign	2.60	@	2.75
Domestic	2.80	@	3.00

Old Waste Papers
(F. o. b. New York)

Shavings—			
Hard, white, No. 1	2.75	@	2.85
Hard White, No. 2	2.30	@	2.40
Soft, white, No. 1	2.50	@	2.60
White envelope cuttings	2.95	@	3.05
Flat Stock—			
Stitchless	.90	@	1.00
Overissue Mag.	.90	@	1.00
Solid Flat Book	.75	@	.85
Crumpled No. 1	.60	@	.70
Solid Book Ledger	1.90	@	2.00
Ledger Stock	.80	@	.90
New B. B. Chips	.20	@	.30
Manilas—			
New Env. Cut	2.00	@	2.20
New Cuttings	1.50	@	1.65
Extra No. 1 old	1.25	@	1.35
Print	.50	@	.60
Bogus Wrapper	.50	@	.60
Container	.25	@	.30
Old Kraft Machine—			
Compressed bales	1.20	@	1.30
News—			
No. 1 White News	1.70	@	1.80
Strictly Overissue	.40	@	.45
Strictly Folded	.30	@	.35
No. 1 Mixed Paper	.15	@	.20
Common Paper	Nominal		

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AGENTS

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Twines
(F. o. b. Mill)

Cotton—			
B. C., 18 basis	.32	@	.34
No. 1	.22	@	.24
No. 2	.21	@	.22
No. 3	.19	@	.20
A. Italian, 18 basis	.38	@	.39
Finished Jute—			
Dark 18 basis	.20½	@	.21
Light 18 basis	.22½	@	—
Jute Wrapping, 3-6 Ply—			
No. 1	.14¾	@	—
No. 2	.13¾	@	—
Tube Rope—			
4-ply and larger	.10¼	@	—
Fine Tube Rope—			
4-ply	.12¾	@	—
3-ply	.13¾	@	—
2-ply	.14¾	@	—
Paper Makers Twine			
Balls	.08¾	@	—
Box Twine, 2-3 ply	.09	@	.10
Jute Rope	.11	@	.12
Amer. Hemp, 6	.29	@	.31
Java Sisal			
No. 1 Basis	.12	@	—
No. 2 Basis	.11¾	@	—
New Zealand Sisal	.11½	@	—
Sisal Lath Yarn—			
No. 1	.14	@	.16
No. 2	.12	@	.14
Manila Twine	.22½	@	.24½

CHICAGO

Paper
(F. o. b. Mill)

Rag Bond	.30	@	.53¼
Water Marked Sul-			
Sulphite Bond	.06¾	@	.11
phite Bond	.09	@	.12
Superfine Writing	.18	@	.24
No. 1 Fine Writing	.14	@	.18
No. 2 Fine Writing	.12	@	.14
No. 3 Fine Writing	.08½	@	.12
No. 1 M. F. Book	.06½	@	.07¼
No. 2 M. F. Book	.05¼	@	.06¼
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07½	@	.12
Coated Label	.07½	@	.10
No. 1 Manila	.04¼	@	.05¾
No. 1 Fibre	.04¾	@	.05¼
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.04	@	.04½
No. 1 Kraft	5.00	@	5.50
Southern Kraft	3.75	@	4.00
No. 2 Kraft	3.75	@	4.00
Wood Tag Boards	.04¼	@	.06¼
Sulphite Screenings	.03	@	.03¼
Manila Tissue	.07	@	.07¼
White Tissue	.07¼	@	.07½
(Delivered Central Territory)			
News, per ton—			
Rolls, contract	62.00	@	—
Sheets	67.00	@	—
Boards, per ton—			
Plain Chip	30.00	@	35.00
Solid News	32.50	@	37.50
Manila Lined Chip	40.00	@	45.00
Container Lined—			
85 Test	50.00	@	55.00
100 Test	55.00	@	60.00

Old Papers
(F. o. b. Chicago)

Shavings—			
No. 1 Hard White	2.35	@	2.40
White Env. Cut-			
tings	—	@	—
No. 1 Soft Shavings	2.10	@	2.15
Ledger & Writings	.70	@	.75
Solid Books	.75	@	.80
Blanks	1.60	@	1.65
Krafts	1.30	@	1.40
New Kraft Cuts	1.40	@	1.50
Manila Env. Cuts	1.50	@	1.55
Ex. No. 1 Manila	1.25	@	1.30
Print Manila	.40	@	.45
Overissue News	.40	@	.45
Old Newspapers—			
No. 1	.35	@	.40
No. 2	.30	@	.35
Mixed Papers—			
No. 1	.28	@	.30
No. 2	.20	@	.25
Roofing Stocks—			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper
(F. o. b. Mill)

Bonds	.05	@	.40
Ledgers	.08	@	.40
Writings—			
Superfine	.12½	@	.18
Extra fine	.18	@	.22
Fine	.17	@	.26
Fine, No. 2	.15	@	.25
Fine, No. 3	.09	@	.20
Book, M. F.	.05	@	.07
Book, S. S. & C.	.05	@	.07½
Book, Coated	.09	@	.16
Coated Lithograph	.07	@	.11
Label	.07	@	.11
No. 1 Jute Manila	.07	@	.09
Manila Sul., No. 1	.03½	@	.05½
Manila No. 2	.03	@	.04
No. 1 Kraft	.05¼	@	.06
No. 2 Kraft	.03½	@	.04
Southern Kraft No. 1	—	@	.03¾
Southern Kraft No. 2	—	@	.03½
Common Bogus	.03	@	.04
(Delivered Philadelphia)			
News Print Rolls	62.00	@	—
Straw Board	52.50	@	70.00
News Board	32.50	@	35.00
Chip Board	30.00	@	32.00
Wood Pulp Board	85.00	@	95.00
Binder Boards—			
No. 1, per ton	75.00	@	—
No. 2, per ton	70.00	@	—
Carload lots	68.00	@	70.00
Tarred Felts—			
Regular	55.50	@	57.00
Slaters (per roll)	.84	@	.94
Best Tarred, 1-ply (per roll)	1.95	@	2.10
Best Tarred, 2-ply (per roll)	1.50	@	1.60
Best Tarred, 3-ply	2.00	@	2.25

Domestic Rags (New)
(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.09	@	.09½
New White, No. 2	.07	@	.07½
Light Silesias	.07	@	.07½
Silesias, No. 1	.07	@	.09
Black Silesias, soft	.05	@	.05½
New Unbleached	.08½	@	.09
Washable, No. 1	.04½	@	.05
Blue Overall	.07½	@	.08
Cottons—According to grades—			
Washable, No. 2	.03	@	—
New Blue	.03	@	.03½
Fancy	.05	@	.05½
New Black Soft	.05	@	.05¾
New Light Seconds	.02½	@	.03
New Dark Seconds	1.85	@	2.00
Khaki Cuttings—			
No. 1 O. D.	.05½	@	.05¾
No. 2 Mixed	.04½	@	.04¾
Corduroy	.03	@	.03½
New Canvas	.08½	@	.09
New Black Mixed	.03¾	@	.04½

Domestic Rags (Old)

White No. 1—			
Repacked	4.25	@	4.50
Miscellaneous	3.50	@	3.75
M. G.	6.00	@	—
Thirds and Blues—			
Miscellaneous	1.60	@	1.80
Repacked	2.00	@	2.25
Black Stockings (Export)	3.90	@	4.25
Roofing Stock—			
Foreign No. 1	1.25	@	1.30
Repacked	.80	@	.90

Bagging
(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.50	@	1.60
Domestic	1.75	@	—
Manila Rope	3.50	@	4.00
Sisal Rope	1.50	@	—
Mixed Rope	1.10	@	1.25
Scrap Burlaps—			
No. 1	1.50	@	1.60
No. 2	1.10	@	1.20
Wool Tares, heavy	3.00	@	—
Mixed Strings	1.15	@	1.25
No. 1, New Light Burlap	2.50	@	2.75
New Burlap Cuttings	2.00	@	2.25

Old Papers
(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	2.65	@	2.75
No. 2 Hard White	2.30	@	2.50
No. 1 Soft White	2.25	@	2.50
No. 2 Soft White	1.40	@	1.60
No. 1 Mixed	.90	@	1.00
No. 2 Mixed	.60	@	.70
Solid Ledger Stock	1.55	@	1.65
Writing Paper	1.05	@	1.25
No. 1 Books, heavy	1.00	@	1.15
No. 2 Books, light	.90	@	.95
No. 1 New Manila	2.15	@	2.30
No. 1 Old Manila	1.50	@	1.60
Print Manila	.50	@	.60
Container Manila	.45	@	.50
Old Kraft	1.35	@	1.40
Common Paper	.25	@	.35
No. 1 Mixed Paper	.25	@	.30
Straw Board, Chip	.35	@	.40
Binders Board, Chip	.35	@	.45
Corrugated Board	.50	@	.60
Overissue News	.45	@	.50
Old Newspaper	.25	@	.30

BOSTON

Paper
(F. o. b. Mill)

Ledgers—			
Sulphite	.07½	@	.12¾
Rag Content	.15	@	.30
All Rag	.38	@	.52½
Bonds—			
Sulphite	.06½	@	.11¾
Rag content	.15	@	.30
All rag	.36½	@	.65
Writings	.06½	@	.20
Superfines	.11	@	.31
Book, Super	.06	@	.09
Book, M. F.	.05½	@	.08½
Book, Coated	.08½	@	.18
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.04¼	@	.05½
No. 2 Kraft	.03¾	@	.08
(Less car-freight to Boston)			
Southern Kraft	—	@	3.35
(F. o. b. destination in carload lots, f. o. b. mill in less than carload lots.)			
Common Bogus	.02	@	.02¾
Delivered New England points			
News Print, rolls	61.50	@	—
Straw Board, rolls	.009	—	@52.50
Straw Board in Sheets, basis 35s to 70s	—	@	50.00
Filled News Board	32.50	@	—
Chip Board	30.00	@	—
Chip Board (Creasing)	32.50	@	—
Single Manila Lined Chip	45.00	@	—
Single White, Patent Coated News Board Bender, No. 1	60.00	@	75.00
Single White, Patent Coated News Board Bender, No. 2	55.00	@	65.00
Wood Pulp Board	75.00	@	80.00
Binder Boards	67.50	@	75.00

Old Papers
(F. o. b. Boston)

Shavings—			
No. 1 Hard White	3.25	@	3.75
No. 2 Hard White	2.60	@	2.90
No. 1 Soft White	—	@	2.40
No. 1 Mixed	.90	@	1.00
No. 2 Mixed	.60	@	.65
Solid Ledger Stock	—	@	1.75
No. 1 Books, heavy	.75	@	.80
No. 1 Books, light	—	@	.65
Crumpled Stitchless Book Stock	—	@	.70
Manila Env. Cuttings	1.85	@	2.00
No. 1 Old Manila	—	@	1.00
White Blank News	1.50	@	1.60
Kraft No. 1	—	@	1.10
Manila	—	@	.80
No. 1 Mixed Paper	—	@	.16
Overissue News	—	@	.40
Old Newspapers	.25	@	.30
Box Board, Chip	.16	@	.20
Corrugated Boxes	.35	@	.40

Bagging
(F. o. b. Boston)

Gunny No. 1—			
Foreign	1.85	@	—
Domestic	1.60	@	—
Manila Rope—			
Foreign	2.50	@	—
Domestic	—	@	3.00
Transmission Rope	2.00	@	—
Mixed Strings	.75	@	.85
Jute Rope	—	@	1.05
Jute Carpet Threads	1.00	@	1.10
Bleachery Burlap	—	@	3.25
No. 1 Scrap Burlap	—	@	1.25
Scrap Sisal	—	@	1.50
Scrap Sisal for shredding	—	@	1.75
Wool Tares, heavy	—	@	1.40
New Burlap Cutting	1.75	@	2.00
Australian Pouches	2.50	@	—
Heavy Baling Bagging	2.00	@	2.10
Paper Mill Bagging	.90	@	—
Bagging No. 2	.50	@	—
No. 1 Burlap	—	@	3.50

Domestic Rags (New)
(F. o. b. Boston)

Shirt Cuttings—			
New White No. 1	.06½	@	.07
New White No. 2	—	@	.06
Silesias No. 1	.06	@	.06¼
New Unbleached	—	@	.08
Fancy	.04	@	.04½
Washable	.04	@	.04½
Cottons—According to grades			
Blue Overalls	.06¼	@	.06¾
New Black, soft	.04	@	.04¾
Knaki Cuttings	.04	@	.04¾
O. D. Khaki	.04½	@	.05
Corduroy	.03	@	.03½
New Canvas	.08	@	.08½

Domestic Rags (Old)
(F. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	4.75	@	5.25
Miscellaneous	5.00	@	—
White No. 2—			
Repacked	.04½	@	.05
Miscellaneous	.03¼	@	.04
Twos and Blues	2.75	@	3.00
Thirds and Blues—			
Repacked	2.25	@	2.50
Miscellaneous	1.75	@	1.90
Black Stockings	3.65	@	4.00
Roofing Stock—			
No. 1	.90	@	.95
No. 2	.65	@	.70
No. 3	.50	@	.60
No. 4	—	@	.60

Foreign Rags
(F. o. b. Boston)

Dark Cottons	.75	@	—
New No. 1 White Shirt Cuttings	7.50	@	8.00
Dutch Blues	—	@	1.80
Lace Curtains	4.00	@	4.25
New Checks & Blues	4.25	@	4.60
Old Fustians	1.65	@	1.65
Old Linsey Garments	.75	@	.85

TORONTO

Paper
(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.12½	@	—
No. 2 Sulphite	.09¾	@	—
No. 1 Colored	.13½	@	—
No. 2 Colored	.09½	@	.10¼
Ledgers (sulphite)	—	@	—
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09½	@	.10
Book—			
No. 1 M. F. (carloads)	7.50	@	—
No. 2 M. F. (carloads)	7.25	@	—
No. 3 M. F. (carloads)	4.00	@	5.75
No. 1 S. C. (carloads)	8.00	@	—
No. 2 S. C. (carloads)	7.75	@	—
No. 3 S. C. (carloads)	7.50	@	—
No. 4 S. C. (carloads)	6.25	@	—
No. 1 Coated and Litho	13.25	@	—
No. 2 Coated and Litho	12.25	@	—
No. 3 Coated and Litho	10.00	@	11.50
Coated tinted	14.50	@	—
Wrapping—			
Rag Brown	4.95	@	—
White Wrap	5.25	@	—
"B" Manila	5.00	@	—
No. 1 Manila	5.40	@	—
Fiber	5.40	@	—
Kraft, M. F.	5.90	@	—
Kraft No. 2	5.40	@	—
(Delivered Toronto)			
News, per ton—			
Rolls (contract)	61.50	@	62.00
Sheets	67.00	@	—

Pulp
(F. o. b. Mill)

Ground Wood	30.00	@	32.00
Sulphite easy bleaching	50.00	@	—
Sulphite, news grade	70.00	@	—
Sulphite, bleached	72.50	@	75.00
Sulphate	60.00	@	—

Old Waste Paper
(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	2.80	@	—
Soft White	2.60	@	—
White Blk. News	1.50	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.10	@	—
Light and Crumpled Book Stock	1.20	@	—
Ledgers and Writings	—	@	—
Manilas—			
New Manila Cut	1.50	@	—
Printed Manilas	.80	@	—
Kraft	1.90	@	—
News and Scrap—			
Strictly Overissue	.70	@	—
Strictly Folded	.70	@	—
No. 1 Mixed Paper	.60	@	—

Domestic Rags
(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.09½	@	.10
Fancy Shirt Cuttings	.06	@	.06¼

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PAPER TRADE JOURNAL
ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

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Established 1886

GROWTH

Despite the handicaps of 1930, we are gratified to report having continued during the past year the consistent progress and expansion that we started forty-six years ago. Even our volume of sales in 1930 showed a substantial increase over 1929.

The faith and good will of our friends who have been with us these forty-six years, is the basis on which we hope to deserve the confidence of the new friends made during the past year and more of whom we hope to gain during the years to come.

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